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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

DEPARTMENT OF PUBLIC UTILITIES

FOR THE

YEAR ENDED NOVEMBER 30, 1926

COMMISSIONERS' REPORT
DIVISION REPORTS



COMMISSIONER'S REPORT

David A. Ellis, who had been a member of this Commission since the creation of the Department in 1919, resigned his position, effective as of February 1, 1926, to devote his attention to the practice of law. Both the Department and the Commonwealth were fortunate in securing a man with the experience, ability, and knowledge of public utility matters possessed by Mr. Ellis which made his services extremely valuable, and his resignation was a matter of sincere regret to the Department and a distinct loss to the Commonwealth.

Lewis Goldberg was appointed to fill the vacancy caused by the resignation of Mr. Ellis and assumed the duties of the office on February 3, 1926.

The work of the Department has been carried on during the year covered by this report with an increase in the personnel of the employees of two inspectors in the Railroad and Railway Inspection Division. As stated in our annual report for 1925, the enforcement of the provisions of Chapter 280 of the Acts of 1925 necessitated such increase and purchase of at least two automobiles.

During the year ended November 30, 1926, the Commission held 631 formal hearings and many informal hearings or conferences. In addition, 3866 complaints have been received which have been adjusted or are in the process of adjustment. It has been necessary to hold numerous hearings upon petitions for certificates that public convenience and necessity require the operation of certain motor vehicles in accordance with the provisions of said chapter 280 of the Acts of 1925.

A statement similar to those inserted in the annual report of the six preceding years follows, giving the number of companies, persons and municipalities under the jurisdiction of the Commission engaged in some form of public utility operation, which have filed annual returns showing the result of their operations: There are 340 such companies, persons and municipalities, divided as follows:—steam railroad companies, 30; street railway companies, 42; telephone companies, 19; telegraph companies, 6; steamboat companies, 4; canal companies, 1; sleeping car companies, 1; voluntary associations, 15; express companies, 17; gas companies, 52; electric companies, 56; water companies, 50; municipalities, 42; manufacturing and other companies doing an electric business, 5.

In addition to the above, there are now under the jurisdiction of the Commission 68 independent motor vehicle operators engaged in the business of furnishing transportation by means of busses in accordance with the provisions of said Chapter 280 of the Acts of 1925 to whom certificates of public convenience and necessity have been issued or granted.

The following indicates the volume of work requiring the attention of the Commission in 1926 as compared with the volume of work requiring its attention in 1925:

Petitions.—Railroad, 58 in 1925, 102 in 1926; street railway, 85 in 1925, 93 in 1926; telephone and telegraph, 1 in 1925, 5 in 1926; gas, 64 in 1925, 50 in 1926; electric, 65 in 1925, 68 in 1926; water, 12 in 1925, 7 in 1926; sale of securities, 5 in 1925, 34 in 1926; motor vehicles, 200 in 1925, 155 in 1926; totals, 490 in 1925, 514 in 1926. In addition thereto the Commission held hearings on 4 abandonment cases (Boston & Maine Railroad) for the Interstate Commerce Commission and has also held hearings with the Interstate Commerce Commission on 2 milk rate cases.

Investigations.—Railroad, none in 1925, none in 1926; street railway, 3 in 1925, none in 1926; telephone, 1 in 1925, 1 in 1926; gas, none in 1925, none in 1926; sale of securities, 978 in 1925, 1814 in 1926; smoke

abatement, 2 in 1925, none in 1926; motor vehicles, none in 1925, 4 in 1926; totals, 984 in 1925, 1819 in 1926.

Complaints.—Railroad, 199 in 1925, 160 in 1926; street railway, 51 in 1925, 59 in 1926; telephone and telegraph, 2,827 in 1925, 2,034 in 1926; gas, 38 in 1925, 59 in 1926; electric, 210 in 1925, 202 in 1926; water, 3 in 1925, 2 in 1926; sale of securities, 1500 in 1925, 1350 in 1926; totals, 4828 in 1925, 3866 in 1926.

Applications for Special Permits.—Railroad, 69 in 1925, 79 in 1926; telephone and telegraph, 2 in 1925, 4 in 1926; miscellaneous, 4 in 1925, 3 in 1926; totals, 85 in 1925, 86 in 1926.

RAILROADS.

The railroads operating in the commonwealth have, during the past year, continued to improve in their financial condition. As was pointed out in the last report, this has been accomplished through economies in operation. In effecting these economies further curtailments in service have in some places been made. Passenger stations in some instances have been entirely abandoned, while in others the number of trains stopping thereat has been reduced. The operation of motor vehicles in many instances has relieved, to a large extent, the inconvenience to the public resulting from this reduced service upon the rails. The tendency has been toward coordination motor service with the rail service in an endeavor to speed up the rail service. Where this can be effectively accomplished it results in an improved service to the greater portion of the passengers, notwithstanding, like all changes, it affects adversely the interest of some. The Department, while approving the effort upon the part of the railroads to improve service on rails by reducing the number of stops and consequently the running time of the trains, has felt obliged in many instances to disapprove of the action of the railroads in the elimination of many stops and has ordered the trains to be stopped as formerly. In these cases the Department found, after investigation, that the inconvenience to passengers using the station was such as to outweigh the advantages gained by other patrons by the elimination of the stops. With the more effective operation of motor vehicles it may be that more stations can, without serious inconvenience to the public, be abandoned. It is obvious that every station that can be abandoned without serious detriment to the public results in a distinct gain to the welfare of the public as a whole in that it reduces the operating charges of the railroad by so much and hastens the complete rehabilitation of the road. With the rehabilitation of the roads more and better freight and passenger service, both of which are so vital to the prosperity and welfare of the Commonwealth, may be expected.

Unless the increases in compensation to employees of the railroads recently granted impose a more serious burden upon the railroads than we anticipate, the end of the present year should, in our judgment, see both the New York, New Haven and Hartford Railroad Company and the Boston and Maine Railroad well out of their financial troubles with their credit restored.

During the year the reorganization of the financial structure of the Boston and Maine Railroad, authorized by chapter 336 of the Acts of 1925, has been accomplished. The Department has approved, under authority of that act, \$13,000,000 prior preference stock and the issue of \$40,490,000 bonds as therein provided. The proceeds of the issue of the stock, under the provisions of the order of the Department, are to be applied subject to the Department's approval.

STREET RAILWAYS.

No petitions were received during the year seeking reductions in

fares. In the manufacturing cities there has been a falling off in riding owing to the depression in business. Street railway companies operating in such cities as New Bedford, Fall River, Lowell, Lawrence, Haverhill and other industrial centers have suffered a decrease in riding. On the whole, however, the business has been good. It seems to be a fact that the public has decided that electric street cars are a necessity in and to the thickly settled city areas and that motor busses cannot furnish the necessary service. Street car systems now furnish transportation not only by electric street cars but also by tunnel trains and motor busses. Service by means of motor busses is discussed more fully hereafter under the heading "Motor Vehicles."

The street railway companies have made, and are making, vigorous efforts to keep down operating expenses and are receiving co-operation from the public.

MOTOR TRANSPORTATION.

Extended reference was made in our report for the year 1925 to the provisions of Chapters 125 and 280 of the Acts of 1925. As stated above, the enforcement of the provisions of said Chapter 280 has necessitated an increase in the force of inspectors of the Department. The Boston & Maine and the New York, New Haven & Hartford Railroads, through subsidiary companies, have engaged quite extensively in the business of furnishing transportation by means of busses. Presumably, they have engaged in this business in an endeavor to get back passenger business and to make up the decreasing revenue obtained from passenger service. Reference to this phase of the motor transportation business was made in our last annual report. Perhaps no further comment is here necessary.

Similar conditions exist in connection with the furnishing of motor transportation by the street railways of the Commonwealth. Automobile competition has increased and the street railway companies, to a more considerable extent than before, have themselves engaged in this form of transportation. While the Commission is still of the opinion that a motor bus cannot take the place of the street railway car in the thickly settled city areas, nevertheless, as feeders to main or through lines and as substitutes for street car service on lines which can not be operated profitably, or on routes where no street railway tracks existed, the motor busses operated by the street railway companies are performing and will continue to perform a useful public service. Various other persons and corporations have also applied for certificates of public convenience and necessity under the provisions of said Chapter 280 of the Acts of 1925. Numerous hearings have been held during the year and many certificates of public convenience and necessity have been issued, first, of a temporary and provisional nature, and later, permanent certificates were issued.

Conflicts have continued between railroad companies, street railway companies, individuals and other corporations as to the granting of such certificates, claims being made that one was encroaching on the territory, service and rights of others. Many of these conflicts have been settled and others have been determined by the Department in dealing with the matter of permanent certificates. The Department has made an intensive study of the various factors entering into the problem and general principles have been worked out which, in the opinion of the Department, do justice to the conflicting parties and serve best the interests of the people of the Commonwealth.

TELEPHONES.

While the new rates effective August 1, 1925 for a period of one year, by order of the Department, have been subjected to some changes, the basic rates have not been altered.

The earnings of the company for the first year indicate that the company has earned a very slight amount in excess of the 8 per cent dividend. In the months of August, September and October of this year, the company's returns indicate earnings substantially below its normal requirements.

Because of the company's financial showing, the Commission has not deemed it advisable at the present time to consider any changes in the basic rates of the schedule.

The activities of the Telephone and Telegraph Division of the Commission for the past year have largely been directed along service lines in addition to the routine work on complaints covering various phases of the telephone company's activities.

GAS, ELECTRIC AND WATER COMPANIES.

Numerous petitions for increases of capital stock and issues of bonds have been received and heard, and after examination by the Accounting Division of the Department and consideration by the Commission, decisions have been made thereon. Increases allowed have been for additions and betterments to the properties.

The gas and electric companies have had a prosperous year. The financial and physical condition of most of the companies has improved and continues to improve. In most instances dividends have been earned and paid, depreciation has been provided for and substantial amounts have been set aside for surplus. The companies engaged in furnishing gas have continued to devote much time, thought and energy to the supplying of gas for heating and refrigeration purposes and this branch of the business of such companies has shown a material increase.

Some voluntary reductions in the rates charged for electricity have been made. The Commission hopes that this tendency in the electric business will continue, and is of the opinion that it should.

Most of the gas and electric rate case hearings have been concluded and decisions rendered thereon.

MUNICIPAL GAS AND ELECTRIC PLANTS.

It is provided by section 58 of chapter 164 of the General Laws that in the operation of municipal gas and electric plants there shall be a fixed price for gas and electricity which shall not be changed oftener than once in three months. It is also provided that "the price shall not, except with the written consent of the Department, be fixed at less than cost, in which shall be included all operating expenses, interest on the outstanding debt, the requirements of serial debt or the sinking fund established to meet such bonds, and also depreciation of the plant reckoned as provided in the preceding section and losses." It is further provided in said section that "such price shall not be greater than shall allow, above such cost, a profit of eight per cent per annum to the town upon its investment. The gas and electricity used by the town shall be charged to it at cost."

When this provision of law was first enacted it was unusual for gas or electric companies to have more than one price for the sale of gas or electricity. In the development of the industry, however, it became the custom of privately-owned and operated plants to establish a classification of rates by which the rate for gas or electricity used for power or industrial purposes was made much less than that applying to gas or electricity used for domestic purposes. Following the practice of the privately owned and operated companies the municipal gas and electric plants have established differentials in rates by which the rate for power and industrial purposes is usually fixed at a very low rate, which rate is frequently less than the average cost of the gas and electricity to

the municipal plant, and, in our judgment, at times is made less than the actual cost, if all factors relating to the manufacture and distribution of the gas and electricity are taken into account. It is a debatable question whether electric and gas plants are authorized under the statutes to make these differentials in price. If not, it is very apparent that many of them are violating the statute in that they are selling electricity and gas below the average cost as defined in the statute. On the other hand, the operation of these plants which are selling gas and electricity in many instances below the average cost yields, on the whole, a higher return than that defined in the statute, namely, eight per cent per annum upon the investment. We think the time has come when the Legislature should clarify these statutes so that the municipal lighting plants may know to what extent they may lawfully make differentials in prices and how low, under such differentials, they may lawfully sell gas and electricity. We understand that a bill has been introduced into the Legislature to clarify the statutes in this regard and we urge legislation to that end.

Assuming, however, that the law does not authorize the sale of gas and electricity by municipal lighting plants, at prices below the average cost, we herewith report the following municipal lighting plants which are selling some gas and electricity below the average cost as defined in the statutes without the permission of the Department:

ELECTRICITY.

Ashburnham	Holden	Princeton
Belmont	Holyoke	Rowley
Blandford	Hull	Russell
Boylston	Ipswich	Shrewsbury
Braintree	Littleton	South Hadley
Chicopee	Mansfield	Southwick
Concord	Marblehead	Sterling
Dana	Merrimac	Taunton
Danvers	Middleborough	Templeton
Georgetown	North Attleborough	Wakefield
Groton	Norwood	Wellesley
Groveland	Paxton	West Boylston
Hingham	Peabody	Westfield

GAS.

Middleborough

Wakefield

And we further report the following municipal lighting plants that from their returns appear to have made more than the eight per cent profit allowed by law during the year 1925 and the percentage of the profit made during that year upon the investment:

Belmont	16.08%	Peabody	18.46%
Braintree	12.19%	South Hadley	20.9 %
Chicopee	9.5 %	Shrewsbury	9.54%
Georgetown	9.2 %	Hudson	10.3 %
Groton	10.1 %	Hull	9.3 %
Hingham	8.5 %	Littleton	10.4 %
Marblehead	11.04%	Wakefield (Gas & Elec.)	8.5 %
Merrimac	9.92%	Wellesley	21.9 %
Norwood	16.31%	West Boylston	9.24%

The foregoing table of percentages of profits is based upon the cost of the municipal lighting plants as returned to this Department. These may very well include much higher figures than was contemplated by the statute, as in most instances they include plant acquired through

earnings of the plant. As a consequence, the percentages may be considerably lower than what in fact ought to be returned. We think it would be desirable to amend the statute so that it would more clearly define what is to be included by the term "investment."

ACCIDENTS CAUSED BY IMPROPER GROUNDING OF WIRES.

The investigation of accidents by the Gas and Electric Division seems to warrant cautioning those responsible for the safety of the public against assuming that an electric line is grounded merely because the line is connected with the ground. Unless the ground resistance has been actually determined to be of a safe order by means of electrical measurements, it is not safe to assume that the ground is effected, notwithstanding that the nature of the soil would indicate that a satisfactory ground was obtained. A connection with the ground under conditions which are not electrically effected may result in danger and serious consequences to the public.

SALE OF SECURITIES ACT.

In 1926, 822 brokers and 3,208 salesmen were registered. Fees for such registrations received and paid to the Treasurer of the Commonwealth amounted to \$47,516. During the year, 185 new applications for registration as brokers were approved and 50 such applications were disapproved; including members of firms, the number disapproved is 153. During the year, 1203 applications for new registration as salesmen were approved and 112 such applications were disapproved. The sale in this Commonwealth during the year 1926 of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$104,300,300 has been stopped by action of the Commission. Since the effective date of the Act (August 26, 1921), up to November 30, 1926, the attempted sale of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$1,683,055,846 has been prevented. During the year 51 formal hearings have been held on complaints arising in connection with sales of securities or the manner in which brokers or salesmen have been conducting their business. The registrations of 8 brokers and 41 salesmen have been cancelled on the registers by orders of the Commission. The registrations of 5 brokers and 37 salesmen have been cancelled in accordance with their requests. In addition to the formal hearings mentioned above, some 1350 complaints have been taken up and disposed of by the Sale of Securities Division of the Department. In connection with the registration of brokers and salesmen under the provisions of Chapter 487 of the Acts of 1924, 1814 investigations were made.

As stated in our last annual report, the provisions of said Chapter 487 of the Acts of 1924 have proved effective in preventing the registration of a substantial number of unqualified applicants. Prior to the date (October 1, 1924) when the provisions of the said Chapter became effective, an applicant for registration as broker or salesman merely filed an application blank accompanied by the certificate of two citizens of Massachusetts to the effect that he was, in their opinion, honest and of good repute. Further, as the law now stands, any person registered as broker or salesman prior to October 1, 1924, shall be entitled to renewals thereof merely by payment of the lawful fee, unless his registration has been or shall be cancelled or revoked by order of the Commission. Therefore, no discretion under the old laws was given to the Commission as to the registration of brokers or salesmen, and any person applying for such registration was entitled to become registered upon complying with the provisions of the law. To a large extent, this applies now to registration of persons who were registered prior to October 1, 1924, and who desire renewal thereof. These

provisions have increased the work and duties of the Commission and made necessary the investigations referred to in the preceding paragraph.

We have made no recommendations to the incoming legislature for amendments to the Sale of Securities Act. As it now stands it is, in our opinion, reasonably effective. We wish to point out again the fact that it is a fraud act, its whole purpose being to prevent sales of fraudulent securities, the fraudulent sale of securities, and the fraudulent conduct of the business of any broker or salesman. We repeat that it does not afford a remedy against unwise investment or speculation. In previous reports we have expressed the thought that the only safeguard against unwise speculation or investment is the education of the public. Before investing in any security and before speculating in any security, or so-called security, careful investigation through reliable and disinterested sources should be made by the person who intends to invest or to speculate. Nor should the fact that sales of a particular security have been permitted by the Commission acting under the provisions of the Sale of Securities Act be taken to mean that such security has merit. The Department does not, by its action in qualifying any security under the provisions of the Act, express or indeed intimate that the security has merit. Such action by the Commission means only that the provisions of the Act have been complied with so that there is no apparent fraud in the issuance or sale of such security at the time, provided no false or exaggerated statements are to be made in the sale thereof.

The various Chambers of Commerce, Boards of Trade, Better Business Associations, Banking institutions, and the Boston Stock and Curb Exchanges, have continued to co-operate with the Commission and to assist the Commission in the performance of its duties. We repeat that, in our opinion, Congress should pass some act to prevent sales of securities through the mails which can not legally be sold within the Commonwealth.

CAPITAL STOCK AND BONDS.

Forty-four applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1926. The par value of the securities asked for was \$68,319,895.24, and the par value of the amount approved was \$66,854,895.24.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

Company	Capital Stock Approved			Bonds approved at par	Date
	Amount at par	Issue Price	Value at Issue Price		
Agawam Electric Company . . .	\$30,000	\$100 00	\$30,000 00	-	July 23
Amesbury Electric Light Company	101,500	25 00	101,500 00	-	June 15
Amherst Gas Company . . .	150,000	100 00	150,000 00	-	July 23
Attleboro Steam and Electric Company	83,200	45 00	149,760 00	-	Feb. 16
Ayer Electric Light Company . .	35,000	185 00	64,750 00	-	June 29
Berkshire Street Railway Company	-	-	-	\$67,500 00 ³	Oct. 28
Boston & Maine Railroad . . .	13,000,000 ¹	-	-	37,531,000 00	May 21
Boston & Maine Railroad . . .	-	-	-	1,040,000 00	Aug. 31
Boston & Maine Railroad . . .	-	-	-	1,675,000 00	Sept. 24
Boston & Maine Railroad . . .	-	-	-	244,000 00	Nov. 4
Cambridge Gas Light Company . .	75,000	55 00	165,000 00	-	Jan. 28
Cape & Vineyard Electric Company	550,000 ²	100 00	550,000 00 ⁴	-	Jan. 28
Dedham & Hyde Park Gas and Electric Light Co. . .	50,000	30 00	60,000 00	-	May 7
Eastern Massachusetts Electric Company	151,250	30 00	181,500 00	-	Aug. 16
Eastern Massachusetts Electric Company	50,000	30 00	60,000 00	-	Oct. 1
Eastern Massachusetts Electric Company	-	-	-	90,000 00	Oct. 1
East Taunton Street Railway Company	-	-	-	21,000 00	Apr. 21
East Taunton Street Railway Company	-	-	-	18,697 86 ³	Apr. 8
Fitchburg & Leominster Street Railway Company . . .	-	-	-	400,000 00	Apr. 2
Gardner Electric Light Company .	138,700	130 00	180,310 00	-	June 15
Gloucester Electric Company . .	73,800	55 00	161,260 00	-	Jan. 22
Haverhill Electric Company . .	673,300	- ⁵	-	-	Jan. 21
Interstate Street Railway Company	-	-	-	150,000 00	July 2
Interstate Street Railway Company	-	-	-	28,522 38 ³	Oct. 27
Lawrence Gas & Electric Company	150,000	40 00	240,000 00	-	Apr. 2
Leominster Electric Light & Power Company	100,000	225 00	225,000 00	-	Oct. 15
Lowell Electric Light Corporation .	322,025	47 50	611,847 50	-	Oct. 1
Lowell Gas Light Company . . .	60,000	50 00	120,000 00	-	Oct. 22
Lynn Gas & Electric Company . .	406,250	70 00	1,137,500 00	-	Jan. 22
Malden Electric Company . . .	240,300	55 00	528,660 00	-	Oct. 5
Malden & Melrose Gas Light Company	424,975	25 00	424,975 00	-	Oct. 1
Montaup Electric Company . . .	3,500,000	100 00	3,500,000 00	-	Sept. 10
New Bedford Gas & Edison Light Company	-	-	-	572,000 00	Mar. 19
New Bedford Gas & Edison Light Company	763,200	55 00	1,679,040 00	-	Apr. 30
Newburyport Gas & Electric Company	106,875	30 00	128,250 00	-	Jan. 15
New England Power Company . .	2,200,000	100 00	2,200,000 00 ⁵	-	Nov. 12
New Salem Electric Company . .	3,750	25 00	3,750 00	-	Jan. 28
Pittsfield Electric Company . .	40,000 ²	25 00	40,000 00	-	Mar. 19
Spencer Gas Company . . .	181,700	100 00	181,700 00	-	Jan. 4
Springfield Street Railway Company	-	-	-	200,000 00	Dec. 15
Southeastern Massachusetts Power & Electric Company . . .	61,425	30 00	73,710 00	-	Apr. 16
Suburban Gas & Electric Company	312,925	37 50	469,387 50	-	Oct. 1
Taunton Gas Light Company . . .	165,000	80 00	264,000 00	-	Oct. 6
Union Light & Power Company . .	257,500	100 00	257,500 00	-	Jan. 29
Wannacomet Water Company . . .	30,000	25 00	30,000 00	-	Sept. 10

¹ Prior Preference stock. ² Preferred. ³ Notes. ⁴ Order of May 28, 1924 approving bonds of \$550,000 revoked and cancelled. ⁵ To be issued in place of 22,000 shares of preferred stock authorized August 16, 1923. ⁶ To be issued only to stockholders of the Newburyport Gas and Electric Company.

LEGISLATIVE INVESTIGATIONS.

Chapter 26 of the Resolves of 1926 provided for an investigation relative to the regulation and supervision of telephone service when furnished by others than telephone companies. Hearings were held on the subject matter of said resolve and a report thereon was made to the General Court on December 31, 1926.

On May 27, 1926 the House of Representatives adopted an order for an investigation relative to the motor bus situation in Massachusetts. Hearings were held thereon and a report was made to the House of Representatives on December 1, 1926.

Chapter 44 of the Resolves of 1926 provided for an investigation by an unpaid special commission relative to the purchase by the City of Boston of certain elevated structures. The special Commission was made up of the Chairman of the Department of Public Utilities, the Chairman of the Boston Transit Department, and a trustee of the Boston Elevated Railway Company. Hearings were held on the subject matter of the said resolve and a report made to the General Court on December 1, 1926.

Chapter 444 of the Acts of 1924 provides for the construction and use of an additional station in connection with the Cambridge Subway at or near the junction of Cambridge and Charles Streets in the City of Boston. A bill was introduced in the Legislature in 1926 to make provision for the accommodation of longer trains than are now operated in the Cambridge Subway in the building of the station. This bill provided for a larger appropriation in order to accomplish the result desired. The matter was referred to the next General Court.

Chapter 321 of the Acts of 1925 provides for the alteration and reconstruction of the Harvard Square station of the Cambridge Subway. Conferences have been held during the year in connection with the subject matter of the said Act, and plans have been submitted to the City Government of Cambridge. So far as we are aware, no action has been taken by the City Government.

LEGISLATION RECOMMENDED.

I.

The electric and gas companies of this Commonwealth, on the whole, are in a very sound financial condition. This has resulted from the policy of this Commonwealth to encourage ample provisions for depreciation and the ploughing in to the property of surplus earnings. As a result there are many companies as to which it can be safely asserted that the reproduction value of the property less depreciation is substantially in excess of its outstanding capital and obligations. These companies therefore present an attractive temptation to financial interests outside the State to acquire. Such interests having been accustomed to regulation wherein the basis of fixing the rates is under the so-called United States Supreme Court rule of a fair return upon the reproduction value of the property less depreciation, see an opportunity by acquiring the control of our domestic corporations to obtain a larger income therefrom than the companies now obtain. We think it would be unfortunate for our domestic companies, which largely have grown up under our New England ideas of basing, in large measure, the rates upon the investment and which have conducted their business with thrift, to pass under the control of such foreign financial interests. All the evils of absentee landlordism would thus obtain. So far as it lies within the power of the Commonwealth to retain the control of its own public utilities in the hands of its own citizens, we think steps should be taken to accomplish the result. Section 10 of chapter 181 of the General Laws provides that whenever a majority of the stock of a domestic corporation becomes owned or controlled

by a foreign corporation and such foreign corporation issues stock, bonds or other evidences of indebtedness based upon or secured by the property, franchise or stock of such domestic company, the Attorney General, by appropriate proceedings, may petition the Supreme Judicial Court for the dissolution of the domestic corporation thus owned or controlled and the Supreme Judicial Court may dissolve it. We think that the same evils exist whether such foreign corporation does or does not issue securities against the ownership or control thereof and that the law ought to be amended and extended accordingly. We are also of the opinion that the pivotal stock is the common stock and such other stock as has like voting power and that the law should be made more specific in this regard.

II.

As a result of recent experience in considering requests for service to the public by certain public utilities, it has developed in some instances that pole locations and the right to string wires in certain communities have been granted by local authorities without condition, reservation or restriction and so have passed, apparently, beyond local control. Subsequently another form of service is demanded and required by the public in the same general locality. A company able, willing and ready to render such service is near at hand. It has no such pole locations, however, and is unable to obtain them by reason of duplication of lines or a change in jurisdictional authority. On the other hand, it is often unable to effect an arrangement with an existing company, which has acquired locations, for a joint use of poles. Under these circumstances the public is left without a remedy. Moreover, it is in the general interest of the public welfare that one pole line should be used whenever practicable instead of two or more. We feel, therefore, that machinery should be provided under and by which this department can exercise jurisdiction in bringing about a joint use of poles wherever it can be done without real injury to either service. To this end we recommend legislation.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
LEWIS GOLDBERG,

Commissioners.

DIVISION REPORTS

Accounting Division.

The utilities now under the jurisdiction of the Department number 340 companies, municipalities and voluntary associations, as follows: Steam railroad companies, 30; street railway companies, 42; telephone companies, 19; telegraph companies, 6; steamboat companies, 4; canal companies, 1; sleeping car companies, 1; voluntary associations, 15; express companies, 17; gas companies, 52; electric companies, 56; water companies, 50; municipalities, 42; manufacturing and other companies doing an electric business, 5.

These 340 utilities file annual returns which are carefully checked and corrected where errors or omissions occur, and in addition this division analyzes the accounts so returned, in order that uniform accounting, as prescribed by the Uniform Classification of Accounts, shall obtain; and that accurate statements of financial and physical conditions may be secured.

This Division has investigated expenditures for additions and betterments for capital increases by 35 gas and electric companies, one water company, one steam railroad, and three street railways, necessitating careful examinations of the accounts and inspections of the properties.

The statistical information required for the annual report of the Department has been compiled, and such information and statistics asked for by the Commission and the general public has been supplied.

There has been a considerable number of violations of law by municipal and gas and electric companies which may be briefly referred to, viz.:—municipal companies whose margin of profit was greater than the legal rate of 8% as follows:

Belmont	16.08%	Marblehead	11.04%
Braintree	12.19%	Merrimac	9.92%
Chicopee	9.5%	Norwood	16.31%
Georgetown	9.2%	Peabody	18.46%
Groton	10.1%	South Hadley	20.9%
Hingham	8.5%	Shrewsbury	9.54%
Hudson	10.3%	Wakefield (Gas & Elec.)	8.5%
Hull	9.3%	Wellesley	21.9%
Littleton	10.4%	West Boylston	9.24%

Companies failing to file their annual returns within the proper time limit:

Municipal Lighting Plants.

Ashburnham	Hingham	Russell
Belmont	Holden	Shrewsbury
Blandford	Hull	Southwick
Groton	Mansfield	Sterling
Groveland	Middleton	Westfield

Gas and Electric Companies.

Gas	Electric
Adams Gas Light Company	Attleboro Steam and Electric Co.
Arlington Gas Light Company	Central Massachusetts Electric Co.
Athol Gas and Electric Company	Leominster Electric Light and Power Company
Blackstone Electric Light Co.	Marlborough Electric Company
Clinton Gas Light Company	Middlesex County Electric Company
Gardner Gas, Fuel and Light Co.	Milford Electric Light and Power Co.
Gloucester Gas Light Company	Northampton Electric Lighting Co.
Leominster Gas Light Company	Southern Berkshire Power and Electric Company
Lynn Gas and Electric Company	Strathmore Paper Company
Milford Gas Light Company	Union Light and Power Company
New Bedford Gas and Edison Light Co.	Ware Electric Company
North Adams Gas Light Company	Worcester Suburban Electric Co.
Northampton Gas Light Company	
Palmer Gas Company	
Spencer Gas Company	
Williamstown Gas Company	

Water Companies.

Aspinwall Water Company	Nuttings Lake Water Company
Granville Center Water Company	Oxford Water Company
Housatonic Water Works Company	Sunderland Water Company
Humarock Beach Water Company	Sutton Water Company

Engineering Division.

During the year the division has investigated expenditures made or proposed on account of additions and betterments by the Boston Elevated Railway, the Boston Terminal and the Boston and Maine Railroad.

In connection with the rate case of the Hingham Water Company various studies have been made.

Plans for five bridges carrying street railway tracks submitted for approval have been examined and nine bridges have been inspected.

Under authority of chapter 321 of the Acts of 1925 a plan for the alteration of the surface structure of the Harvard Square station of the Cambridge Subway was completed and submitted to the City of Cambridge for approval.

In connection with railroad and railway signals, ten interlocking towers and thirteen automatic signals were inspected, nine plans for changes were examined and two collisions investigated.

In connection with the elimination of grade crossings, two hearings before a special commission were attended, two statements of expenditures were examined and several cases of damages for land taken were investigated.

A valuation of the Attleboro Branch railroad was made and two conferences of engineers with the Valuation Bureau of the Interstate Commerce Commission upon the valuation of the New York Central Lines were attended.

Gas and Electric Division.

During the past year about thirty reports have been made to the Commission concerning petitions brought under the compulsory state statute, or on various special assignments involving the sale of gas and electricity between companies, eminent domain proceedings and the investigation of accidents. Work has also been done on petitions for the authorization of securities, a reduction in rates or an improvement of service. Two hundred and forty-four petitions under the compulsory supply statute have been disposed of informally without entry in the docket of the Department.

COMPLAINTS AGAINST GAS, ELECTRIC AND WATER COMPANIES.

There are indications that the improvement in the ability of the companies to deal with the problems presented by the public has continued even though the statistics for this year do not differ substantially from those which were presented in the last report. The number of petitions listed in the Department's docket is 15 as compared with 16 in 1925, but five of them were occasioned by premature resort to this Department by the public.

The statistics relating to complaints are given in the two following tables without discussion but with a reference to the report for 1922 where the general subject of complaints was considered.

TABLE I.—A General Analysis of Complaints Received During 1926.

	Water Companies	All Gas Companies	Edison Company of Boston	All Other Electric Companies	Total
Quality of supply	—	5	1	1	7
Large bills	—	10	2	12	24
Errors in reading or billing	—	2	1	4	7
Prepayment meters	—	—	—	—	—
Meter tests only	—	4	3	3	10
Supply shut off	1	8	8	5	22

Service required	1	23	104	47	175
Explanation of rates	—	1	—	8	9
Deposit requirements	—	2	1	1	4
Miscellaneous	—	—	—	1	1
Total	2	55	120	82	259

TABLE II.—*Number of Complaints against Certain Companies.*

	1922	1923	1924	1925	1926
Abington and Rockland	3	9	5	3	6
Adams	4	3	2	—	—
Amesbury Gas	6	9	—	—	—
Arlington Gas	15	8	7	2	4
Boston Consolidated	97	55	24	12	15
Brockton Gas	7	2	—	—	1
Cambridge Electric	7	5	1	5	2
Cambridge Gas	11	10	4	3	4
Cape and Vineyard Electric	14	10	5	9	12
Charlestown Gas and Electric	14	10	6	4	4
Edison of Boston	200	204	166	117	120
Edison of Brockton	5	3	2	2	3
Lawrence	7	4	6	2	3
Lowell Electric	13	16	15	12	5
Lynn Gas and Electric	4	6	1	—	—
Malden Electric	10	4	2	9	5
Malden Gas	24	21	11	9	9
Marlboro Electric	10	4	—	2	2
Plymouth Electric	5	10	5	7	5
Quincy Electric	3	2	4	3	5
Suburban Gas and Electric	14	6	8	7	10
Worcester Suburban Electric	5	4	5	1	2
31 other companies				42	42
70 other companies against which there were				None	None
				251	259

Three of the petitions brought under the compulsory supply statute and listed on the docket of the Department may be of general interest. In No. 2436 the petitioner requested the Department to order the Company to supply him by means of an underground service although the Company was willing and able to give the supply by means of an overhead service in the usual way. The petition No. 2471 resulted from the fact that the supply had been discontinued because the petitioner refused admission to his premises, and in 2621, because the agents of the Company had been molested while in the pursuit of their duties on the customer's premises. (An occurrence of a similar nature was the occasion for D. P. U. 1799 in 1925.) In all except D. P. U. 2436 no order was entered and the situation is described only in the stenographic record of the hearing.

Comments arising from the investigation of accidents will be found in the report of the Commission.

ELECTRIC METERS.

During the past year the schedule of fees for the testing of electric meters was revised by order of the Department dated September 16, 1926, in order that the State might be reimbursed for the cost of testing commercial meters and yet to permit the small domestic consumer to have the accuracy of his meter determined for a nominal fee.

Eleven meters were tested during the year. None were fast as defined by statute. The maximum fast error found was 2.5 per cent and

the average fast error was 0.9 per cent. The maximum slow error was 6.3 per cent and the average slow error was 1.26 per cent. The fees amounted to \$35.50 and the cost of testing was \$307.37.

Gas Inspection Division.

During the year ended November 30, 1926, this Division inspected 115,095 gas meters and made 619 inspections of the quality of gas supplied by the 52 corporations and 4 municipalities. Two companies have two testing stations each. Seven gas pressure surveys were made, 38 special thermometers were calibrated for calorimetric work; 15 calorimeter or experimental meters tested and calibrated; 6 meter provers inspected and calibrated. In conjunction with the Railroad Inspection Division, five types of gasoline rail cars, comprising 28 cars and one bus, were examined as to safety of heating by other means than steam. The usual investigations of accidents and complaints were made.

The gas meter fees collected and paid the State Treasurer totaled \$29,458.80 and the expenses of the Division were \$26,040.80.

All gas meters used to measure gas to consumers must be inspected and, if found correct, sealed. Of the 115,095 meters presented for inspection, 108 were not sealed. The number of "prepayment" meters is decreasing, only 7,214 being inspected during the year, as compared with 9,262 the previous year. Included in the total number of meters were 1,193 meters which were re-inspected on complaint either of the consumer or gas company. Of this number 8 would pass gas but would not register while 1 would neither pass gas nor register. The average error of the remaining 1184 meters was 1.64% fast. 478 meters were fast, the average error being 4.85%; 80 meters were slow, having an average error of 6.11%. 52.87% of the total number of complaint meters were found correct within the tolerance of 2% legally allowed.

The standard for heating or calorific value of gas, except in the case of two companies, is 528 total British thermal units per cubic foot of gas. These two companies, Plymouth and Blackstone, are permitted to supply gas to a standard of 500 Btu's, under the provisions of chapter 234, Acts of 1925. Excepting these two companies, the average calorific value for all corporations and municipalities was 542.7, and the average variation between the highest and lowest of each company was 39.6 Btu's; 24 companies supplied gas that varied only 30 Btu's or less during the year. Of the 619 inspections there were 135 instances of violation of one of the four standards prescribed for inspection. 38 companies and 3 municipalities supplied gas which on inspection showed 95 violations of the heating value standards and 40 violations of the purity standards.

Following is a summary of the records of accidents reported for the year ended November 30, 1926:

Of those caused by gas, 250 were fatal and 312 non-fatal; 111 of the fatal cases appear to have been suicides, and 53 of the non-fatal were apparently due to suicidal intent. Of the non-fatal cases, 3 were apparently homicidal. Of the accidents caused by electricity, 20 were fatal and 62 non-fatal. Of the gas accidents, 3 non-fatal were to employees of the company. Seven of the fatal electric accidents and 33 of the non-fatal cases were employees of the companies.

Railroad and Railway Inspection Division.

The personnel of this division was increased during the year by the addition of two bus inspectors and a street railway inspector to fill a vacancy, one appointed on October 11th, one on September 10th and the other on May 21st.

The following report shows the work performed by this Division during the year ended November 30, 1926.

COMPLAINTS.

The number of complaints received in connection with railroad operation was 160; in connection with street railway operation, 59; in connection with bus operation, 54. These complaints were investigated and adjusted by this Division, thus obviating the necessity of public hearings or conferences and the issuing of orders or memoranda by the Department.

INQUESTS.

The number of inquests in cases of death by accident attended by inspectors was 173.

RAILROADS.

Locomotives.

The number of locomotive inspections made at various times was 5,532. In 4,746 inspections no defects were found. In 786 cases locomotives were found defective because of steam leaking so as to obscure the vision of enginemen, or were found to have defective boilers, wheels, spark arresters, or ash pans. These defects were called to the attention of the proper officials and remedied.

The number of special examinations of spark arresters and ash pans was 3,719.

During the year thirty-five new engines were put into operation in Massachusetts, twenty-five on the Boston and Albany and ten on the New York, New Haven and Hartford Railroad. Twenty-one new passenger-carrying gasoline motor cars were put into operation during the year, fourteen on the Boston and Maine, six on the New York, New Haven and Hartford and one on the Central Vermont Railway.

Frog and Switch Blocking.

The number of pieces of foot blocking found to be missing or defective, called to the attention of proper officials and remedied, was 7,945.

Bridge Guards.

The number of bridge guards found defective, called to the attention of proper officials and remedied, was 1,687.

Steam Passenger Train Equipment.

The number of passenger coach inspections made during the year was 10,673. Of this number 549 were found defective with reference to wheels, brakes, lighting, car seat frames, missing emergency tools, or because of untidy conditions.

Steam Freight Train Equipment.

The number of freight cars inspected and found to be in good condition was 10,374; found defective, 353. Caboose cars inspected and found without defects, 265; found defective, 41. Milk cars inspected and found in good condition, 131; found defective, 14.

Passenger Stations.

The number of inspections of passenger stations made at various times where stations were found to be in good or fair condition was 3,515. The number of stations found defective with reference to platforms, lavatories, or because of untidy conditions, and called to the attention of proper officials and remedied, was 223.

Accidents.

The number of fatal accidents to individuals on steam railroads investigated was 141. The number of serious personal injuries investigated was 149; crossing accidents investigated, 93; other accidents investigated, such as derailments and collisions, 83.

The number of persons killed and injured in the operation of railroads in Massachusetts during the year ended November 30, 1926, as reported by the several companies, is shown by the following table:

	Killed	Injured
Passengers	8	36
Employees	32	66
Travellers on highway at grade crossings	29	34
Trespassers	45	14
Others	4	4
Total	118	154

The number of employees killed and injured during the year, classified by character of employment, is shown by the following:

Character of Employment	Killed	Injured
Enginemen and firemen	1	15
Conductors and trainmen	13	14
Trackmen and laborers	10	22
Bridgemen	1	—
Shopmen	2	—
Crossingmen	—	1
Inspectors	1	1
Freight handlers	—	3
Yardmen	1	1
Watchmen	1	—
Enginehouse men	—	1
Car cleaners	—	1
Painters	1	—
Machinists	—	1
Electricians	—	1
Others	1	5
Total	32	66

The following table shows the character of accidents to employees during the year:

Character of Accident	Killed	Injured
Collision	1	34
Derailment	—	2
Overhead or side obstruction	1	1
Coupling and uncoupling	1	2
Falling	4	4
Engine accidents	—	5
Walking on or crossing tracks	18	4
Getting on or off cars, etc.	—	1
Working on track	6	4
Shop accidents	1	1
Others	—	8
	32	66

The following table shows the number and character of accidents at grade crossings on the different railroads during the year:

Accidents at Grade Crossings during the Year Ended November 30, 1926.

Railroads	Protected Crossings			Ratio of Accidents to Crossings	Unprotected Crossings			Ratio of Accidents to Crossings
	Num- ber	Killed	In- jured		Num- ber	Killed	In- jured	
Boston & Albany	66	—	—	—	120	—	—	—
Boston & Maine	499	11	6	1 to 29	222	4	7	1 to 20
Boston, Revere Beach & Lynn	10	—	—	—	2	—	—	—
Hoosac Tunnel & Wilmington	—	—	—	—	3	—	—	—
Central Vermont	8	—	—	—	33	—	—	—
New York, New Haven & Hart- ford	429	10	10	1 to 21	313	4	11	1 to 21
Fore River	—	—	—	—	5	—	—	—
Total	1012	21	16	1 to 27	700	8	8	1 to 27

STREET RAILWAYS.

Certificates for Operation.

The number of inspections of new street railway tracks made as a preliminary to issuing certificates for operation was 41.

Street Railway Equipment.

During the year 9,997 car inspections were made, and in 9,308 cases no defects were found. The number of cars found defective with reference to wheels, brakes, lighting, car seat frames, or because of untidy conditions, was 689.

Accidents.

The number of fatal accidents to individuals investigated was 64. The number of accidents caused by broken or loose wheels, broken journals and axles investigated was 34; miscellaneous accidents investigated, such as collisions, personal injuries, and accidents caused by faulty operation, 243; accidents caused by spread rails, broken rails, defective special work, poor surface and alignment of track, 105.

Bridges.

There are approximately 2,940 bridges on the railroads and street railways in the Commonwealth with a span of 10 feet or over. This includes bridges on private railroads and sidetracks.

During the year 2,822 inspections were made. These figures include the inspection of one bridge on an abandoned street railway and also the inspection of a highway bridge between Northampton and Hadley in connection with the operation of buses. Nearly all of the main line railroad and street railway bridges in the Commonwealth were inspected during the year. The few exceptions are bridges of substantial construction such as stone or concrete. Following is a summary of the bridge inspections:

	Number of Inspections
Railroads, main line	1,461
Street railways	762
Sidetracks of railroads	574
Private railroads	23
Others	2
Total	2,822

During the year four railroad and seven street railway bridges have been built or rebuilt and construction work on others is in progress.

This includes one street railway bridge rebuilt because the former bridge was wrecked by an accident.

On a bridge in Taunton carrying a street railway track, the operation of cars was ordered discontinued until the bridge is rebuilt or substantially repaired. The city has since submitted a plan of a proposed new bridge on this site.

In Montague a bridge carrying a street railway track was found to be deformed by the weight of a water main attached to the main girder. The parties concerned have been brought together and are making the necessary alterations to correct the defect.

In addition to the above, many bridges of the railroads and street railways have had repairs of a more or less substantial nature made during the year.

Rate and Tariff Division.

Tariff changes made during the twelve months ending November 30, 1926, were:

On steam roads, freight service, 933; passenger service, 323; electric street railways, freight, 34; passenger, 13; express changes, 58; telephone and telegraph changes, 4; bus filings, 18; making a total of 1383.

Changes in rates for *electricity*. Privately owned companies: lighting, 30; heating and cooking, 18; power, 10. Municipals: lighting, 14; heating and cooking, 6; power, 12. Total: 44 changes for lighting; 24, heating and cooking; 22, power.

Changes in rates for *gas*: General, 15; House and Building Heating, 12; Municipal, 1 House Heating. Total, 28 changes.

The above changes represent reductions in almost every case.

Telephone and Telegraph Division.

The actual complaints requiring specific treatment by the inspection force of the Division was much less than in 1925. This gave the inspectors an opportunity from time to time to inquire into operating and plant conditions.

In spring and summer it became evident that maintenance was below the usual standards and considerable time was given by the inspectors to looking into that phase of the service. There was evidence from time to time that telephone stations were out of order for a much longer period than subscribers have a right to expect. This was true in the Metropolitan District as well as outside. The last few months of the year a noticeable improvement was evident and the inspectors are closely following this particular situation.

As a whole, telephone service has been very good during the past seven or eight months and test work by inspectors from time to time the latter part of the year showed that many calls were being completed by manual operation as rapidly as the dial.

The Chief of the Division had quite a large number of informal meetings in various parts of the State as the result of protest and inquiries over several phases of the new rate schedule, particularly the mileage rates. In none of these cases was it necessary for the Commission to hold a formal hearing.

The number of cases handled by the Division was 2034.

Abatement of Smoke Division.

During the present year, which marks the completion of the fourteenth year under the final provisions of Chapter 651 of the Acts of 1910, for the regulation of smoke in Boston and vicinity, it has not been necessary to make any changes in the method of conducting the work. Periodic and systematic observations have been made through-

out the district by the inspectors, who have also made plant inspections whenever they have thought from the amount of smoke observed that a change had been made in the working conditions in any plant.

All complaints received by the Department, and there has been a further increase in the number received this year over that of last year, have been promptly investigated. Those found to be emissions not in excess of the allowable amount, were so reported to the complainant with the suggestion that the matter be reported to the local Board of Health. Where the emissions were in excess of the allowable amount, suggestions for overcoming the difficulties were offered, and thereafter, from time to time, more observations were taken to see if the conditions had been corrected and were continued.

The oil burning plant continues to be the most vexing problem confronting us. Many of the complaints received by the Department about oil burning plants were due fully as much to the odors and fumes as to the smoke. Of the total number of observations on stationary stacks showing an emission in excess of the allowable amount, fifty-four per cent were on oil burning plants, which compares with forty-eight percent last year and fifty-four percent the previous year.

The marine violations have decreased this year, being less than half the number observed last year. The locomotive violations show an increase but are still below the number reported in 1924.

It has not been found necessary to give any public hearings or to take any further action on the formal orders issued in previous years.

The following comparative tabulated summary shows the work of this Division for the year ending November 30, 1926, and the preceding year. Attention should be directed to the fact that again this year, of the total observations, those on which the emissions in excess of the allowable amount were noted for all classes of stacks, stationary, locomotives and marine—are less than one-half of one percent.

Recorded observations:	1925	1926
Stationary stacks	91,607	91,816
Locomotive stacks	37,510	37,857
Marine stacks	2,701	2,713
Total	131,818	132,386

Observations recorded showing the emission of smoke in excess of the amount allowed by the act:

Stationary stacks	168	179
Locomotive stacks	15	26
Marine stacks	13	7
Total	196	212

Percentage of observations in which emissions of smoke in excess of the amount allowed by the act were found:

Stationary stacks . . . . .	.18	.19
Locomotive stacks . . . . .	.04	.07
Marine stacks . . . . .	.48	.26

Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the carelessness of those immediately responsible for their operation .

83 77

Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to overloading the plant .

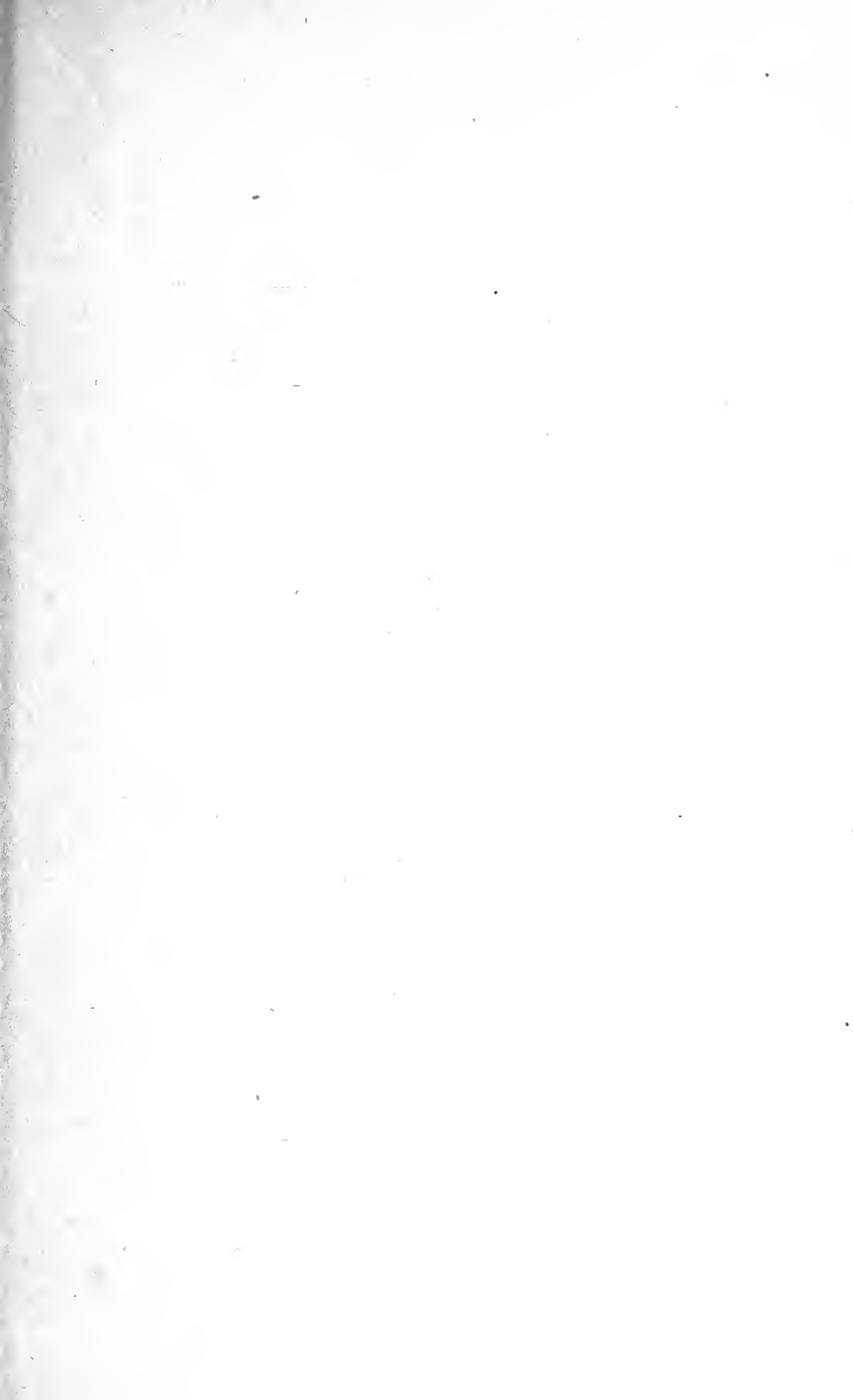
4 6

Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the fuel situation . . .	—	—
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, burning fuel oil . . .	81	96
Stationary stacks upon which recorded observations have been made may be classified as follows:		
Public service	144	143
Manufacturing plants	839	830
Office buildings	879	924
Residences	15	15
Total	<u>1,877</u>	<u>1,912</u>

Stationary stacks upon which recorded observations showed smoke emitted in excess of the amount allowed by the act may be classified as follows:		
Public service	7	13
Manufacturing plants	44	40
Office buildings	36	49
Residences	—	—
Total	<u>87</u>	<u>102</u>

Number of stacks found after first notice or visit of chief inspector to have ceased emitting smoke in excess of the amount allowed by the act	56	69
Additional number of stacks so found after further notice of visits	30	30
Number of stacks from which the emission of smoke contrary to the requirements of the act has been observed and had not ceased at the close of the year:		
Public service	—	2
Manufacturing plants	1	1
Office buildings	—	—
Total	<u>1</u>	<u>3</u>







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The Commonwealth of Massachusetts

Annual Report

OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1927

COMMISSIONERS' REPORT

DIVISION REPORTS



COMMISSIONERS' REPORT

Henry W. Hayes, who had been Chief Engineer of the Public Service Commission from 1913 until the creation of the Department of Public Utilities in 1919 and Chief Engineer of this Department from 1919 to 1927, retired effective as of September 1, 1927. His ability as an engineer, his familiarity with the work and duties of the office and his long experience made him a valuable officer of the Department and it was with regret that the Commissioners agreed to his retirement. Mr. William J. Keefe the Assistant Engineer was appointed Chief Engineer to fill the vacancy caused by the retirement of Mr. Hayes.

The work of the Department has been carried on during the year covered by this report with no increase in the personnel of the employees.

During the year ended November 30, 1927, the Commission held 514 formal hearings and many informal hearings or conferences. In addition, 3429 complaints have been received which have been adjusted or are in process of adjustment. It has been necessary, as it was in the year ended November 30, 1926, to hold numerous hearings upon petitions for certificates that public convenience and necessity require the operation of certain motor vehicles in accordance with the provisions of Chapter 280 of the Acts of 1925.

A statement similar to those inserted in the annual reports of the seven preceding years follows, giving the number of companies, persons and municipalities under the jurisdiction of the Commission engaged in some form of public utility operation, which have filed annual returns showing the result of their operations: There are 399 such companies, persons and municipalities, divided as follows:—steam railroad companies, 30; street railway companies, 42; bus companies, 53; telephone companies, 18; telegraph companies, 6; steamboat companies, 3; canal companies, 1; sleeping car companies, 1; voluntary associations, 16; express companies, 17; gas companies, 53; electric companies, 56; water companies, 53; municipalities, 44; manufacturing and other companies doing an electric business, 6.

Certificates of public convenience and necessity have been issued or granted to 105 individual motor vehicle operators engaged in the business of furnishing transportation by means of busses in accordance with the provisions of said Chapter 280 of the Acts of 1925.

The following indicates the volume of work requiring the attention of the Commission in 1927 as compared with the volume of work requiring its attention in 1926.

Petitions:—Railroad, 102 in 1926, 66 in 1927; street railways, 93 in 1926, 93 in 1927; telephone and telegraph, 5 in 1926, 5 in 1927; gas, 50 in 1926, 63 in 1927; electric, 68 in 1926, 89 in 1927; water, 7 in 1926, 12 in 1927; sale of securities, 34 in 1926, 15 in 1927; motor vehicles, 155 in 1926, 125 in 1927; totals, 514 in 1926, 468 in 1927. In addition thereto, the Commission held hearings with the Interstate Commerce Commission on one milk rate case.

Investigations:—Railroad, none in 1926, none in 1927; street railway, none in 1926, 2 in 1927; telephone and telegraph, 1 in 1926, none in 1927; gas and electric, none in 1926, 1 in 1927; sale of securities, 1814 in 1926, 2712 in 1927; smoke abatement, none in 1926, 2 in 1927; motor vehicles, 4 in 1926, 3 in 1927; miscellaneous, none in 1926, 1 in 1927; totals, 1819 in 1926, 2729 in 1927.

Complaints:—Railroad, 160 in 1926, 204 in 1927; street railway, 59 in 1926, 83 in 1927; bus, 103 in 1927; telephone and telegraph, 2034 in 1926, 1643 in 1927; gas, 59 in 1926, 56 in 1927; electric, 202 in 1926, 137 in 1927; water, 2 in 1926, 3 in 1927; sale of securities, 1350 in 1926, 1200 in 1927; totals, 3866 in 1926, 3429 in 1927.

Applications for Special Permits:—Railroad, 79 in 1926, 84 in 1927; street railway, none in 1926, 4 in 1927; bus, 1 in 1927; telephone and telegraph, 4 in 1926, 3 in 1927; electric, none in 1926, 5 in 1927; miscellaneous, 3 in 1926, 3 in 1927; totals, 86 in 1926, 100 in 1927.

RAILROADS.

During the year 1927 the railroads operating in the commonwealth, with the exception of the Central Vermont Railway and the possible exception of the Boston, Revere Beach and Lynn Railroad, have improved their financial situation. During the year the New York, New Haven and Hartford Railroad Company has earned an amount equaling 6 per cent upon its common stock, and there seems to be no reason why, in the immediate future, it will not be able to resume dividends and restore entirely its credit.

On the whole the Boston and Maine Railroad has made commendable progress, which, but for the losses sustained through the recent flood, would have been very satisfactory.

Following the recent flood in New Hampshire, Vermont and western Massachusetts, the Central Vermont Railway has been obliged to go into the hands of a receiver. In view of the fact that the stock of this railroad is controlled largely by the Canadian National Railways, it is not expected that the receivership proceedings will result in any impairment of the service furnished by this road to the people of Massachusetts.

Recently the control of the Boston, Revere Beach and Lynn Railroad has passed into the hands of new interests. The new owners propose marked changes in the operation of the railroad. It is planned to rehabilitate the entire system, to substitute for steam power electric power, to employ, in connection with the electric power, what is known as the multiple-unit system, and to make changes in the methods of collection of fares. These changes, if carried out, ought to insure better service by speeding up the operation of the trains, by the elimination of smoke, by the better lighting and more uniform heating of the cars, and perhaps by furnishing more frequent service. Applications for the issuance of stock and bonds to provide means to make the changes and improvements are now pending before the Department.

STREET RAILWAYS.

No petitions were received during the year seeking reductions in fares. Protests were filed and hearings held thereon in connection with new schedules of rates filed by the Union Street Railway Company of New Bedford and the Holyoke Street Railway Company of Holyoke. The schedules as filed by the companies with certain modifications ordered by the Department were permitted to go into effect. As a whole, traffic has been fairly satisfactory in the larger cities but there has been a decrease in traffic in the less populated territory. In general, the larger street railway companies have been able to operate at a slight profit due almost entirely to economies in the cost of operation introduced during the last several years since the street railway companies were obliged to meet the drastic competition of the private automobile and motor bus. Owing to depression in business, there has been a considerable falling off in riding in the city of New Bedford. Riding in the other large cities of the Commonwealth has been about equal to that of last year. There has been a marked increase in the abandonment of street railway tracks. Service along routes where the tracks have been abandoned is being given by the street railway companies through the operation of motor busses. As stated last year, it seems to be a fact that electric street cars are a necessity in and to the thickly settled city areas and motor busses cannot furnish the necessary service. Again, as pointed out last year, street railway systems now furnish transportation not only by electric streets cars but also by tunnel trains and motor busses. Service by means of motor busses is discussed more fully hereafter under the heading "Motor Transportation."

MOTOR TRANSPORTATION.

Chapter 268 of the Acts of 1927 provides that a licensee shall deposit with the State Treasurer a bond in such sum as is required by the Depart-

ment, with sureties or other security approved by the Treasurer and the Department. Chapter 276 of the Acts of 1927 provides that any licenses granted by local authorities shall become permanent, subject to revocation by the local authorities, such revocation, however, not to become valid until consented to by the licensee or approved by the Department. The provisions of Chapter 268 of the Acts of 1927 caused considerable increase in the work of the Department.

During the last year the Boston & Maine and the New York, New Haven and Hartford Railroads, through subsidiary companies, have continued to engage quite extensively in the business of furnishing transportation by means of busses. The operation of these busses has in instances been undertaken as substitute for rail service and in other instances to supplement rail service.

To a large extent similar conditions have obtained in connection with the furnishing of motor transportation by the street railways of the Commonwealth. More street railway trackage has been abandoned during the past year than ever before and transportation along lines where trackage has been abandoned generally has been and is being furnished by the street railway companies by means of motor busses. Apparently, it is the best judgment of the persons in charge of operation of street railway companies that transportation can be, in such instances as are above referred to, more advantageously furnished both as to economy of operation and efficiency of service by the motor bus. In the opinion of the Commission it still remains true, however, that such bus transportation by street railway companies should be confined to lines which cannot be operated profitably or to routes where no street railway tracks exist.

Other corporations and individuals have applied for certificates of public convenience and necessity under the provisions of Chapter 280 of the Acts of 1925, as amended. Numerous hearings have been held during the year and many such certificates have been issued.

Conflicts have continued to arise between railroad companies, street railway companies, individuals and other corporations as to the granting of such certificates. Such conflicts have either been settled or have been determined by the Department.

TELEPHONES.

The first full calendar year under the new rates of the New England Telephone and Telegraph Company, authorized by the Department, resulted, according to the company's report, in earnings in excess of its dividend requirements of \$335,398. This surplus earning apparently would not have resulted except that the American Telephone and Telegraph Company reduced the payments under its contract with the local company from 4½ per cent on the gross earnings to 4 per cent. The corporate earnings for the first nine months of 1927 appear to be \$671,779. The report for the full year is not as yet available nor can we at present determine to what extent the earnings were affected by reason of the disastrous flood in New Hampshire, Vermont and western Massachusetts.

Much time has been devoted in the last six months by the telephone division to a state-wide survey for the purpose of determining the number of people unable to secure service and also those waiting for a better grade of service, and to ascertain the reasons therefor. The telephone division reports to us that the service at the present time is as good as it has been at any time in recent years.

GAS, ELECTRIC AND WATER COMPANIES.

Numerous petitions for increases of capital stock and issues of bonds have been received and heard, and after examination by the Accounting Division of the Department and consideration by the Commission, decisions have been made thereon. Increases allowed have been for additions and betterments to the properties.

The year 1927 was a prosperous one for the gas and electric companies and their financial and physical condition has continued to improve. Dividends have been earned and paid, and generally provisions have been made for depreciation and surplus. Voluntary reductions in rates charged for electricity have been made by a number of the electric companies and the communities served have profited by such reductions. Various petitions for reductions in the prices charged by gas and electric companies have been received and most of them have been decided after hearing and consideration. Some rate cases are still pending. There has been a tendency toward voluntary reductions in the rates charged for electricity and the Commission hopes that this tendency will continue and is of the opinion that it should.

The companies engaged in furnishing gas have made a more extended effort than ever before in their history to increase the use of gas in industrial plants and for heating, refrigerating and cooking. The use of gas for industrial purposes has increased somewhat, but there has been a slight falling off in domestic use.

MUNICIPAL GAS AND ELECTRIC PLANTS.

We herewith set forth a list of the municipal gas and electric companies which during the year 1926 appear to have violated the law by neglecting to reduce their rates where the plants have earned a profit in excess of that authorized by law.

Belmont	17.44%	Middleborough	8.76%
Braintree	13.29%	Norwood	16.15%
Chicopee	12.14%	Peabody	21.74%
Groton	8.16%	Shrewsbury	8.95%
Hingham	11.53%	South Hadley	20.69%
Hudson	11.45%	Wellesley	19.94%
Marblehead	10.04%	West Boylston	9.05%
Merrimac	9.17%		

Many of the above companies have, during the past year, reduced their rates to such an extent that it is hoped that during the year ending December 31, 1927, they will have complied with the law.

We also submit a list of gas, electric and water companies that have violated the law by failing to file their annual returns within the limit prescribed by law.

Municipal Lighting Plants.

Granville	Groveland	Middleton
Shrewsbury	Southwick	

Gas and Electric Companies.

Attleboro Steam and Electric Company.
Strathmore Paper Company.
Lynn Gas and Electric Company.

Water Companies.

Ashfield Water Company.	C. W. Hubbard Water Company
Aspinwall Water Company	(Auburndale)
Hill Water Company.	Monument Beach Water Works.
	Oxford Water Company.

SALE OF SECURITIES ACT.

In 1927, a total of 3540 salesmen and 817 brokers were registered. Fees for such registrations received and paid to the Treasurer of the Commonwealth amounted to \$47,904. 172 new applications for registration as brokers were approved and 43 such applications were disapproved; including members of firms, the number disapproved was 137. 1217 applications for new registrations as salesmen were approved and 79 such

applications were disapproved. The sale in this Commonwealth during the year 1927 of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$174,591,788 has been stopped by action of the Commission. Since the effective date of the Act (August 26, 1921) up to November 30, 1927, the proposed sale of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$1,857,647,634 has been prohibited. In 1927, 32 formal hearings were held on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. The registrations of 6 brokers and 57 salesmen were cancelled on the registers by orders of the Commission. In addition, the registrations of 4 brokers and 52 salesmen were cancelled in accordance with their requests. In addition to the formal hearings mentioned above, some 1200 complaints were taken up and disposed of by the Sale of Securities Division of the Department. In connection with the registration of brokers and salesmen under the provisions of Chapter 487 of the Acts of 1924, 1512 investigations were made.

The provisions of said Chapter 487 of the Acts of 1924 amending Chapter 499 of the Acts of 1921 have proved efficacious in preventing sales of securities on an installment or partial payment plan unless and except as such plan is approved by the Commission. We think that it is safe to say that the selling of securities on the installment or partial payment plan has materially decreased in Massachusetts during the past three years and particularly during the past year. The selling of securities before the passage of the said Act on an installment or partial payment plan was an undoubted evil and led to many abuses and unfair dealings on the part of those engaged in the business of selling on any such plan.

CAPITAL STOCK AND BONDS.

Thirty-eight applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1927. The par value of the securities asked for was \$38,133,446.64, and the par value of the amount approved was \$35,038,071.64.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law.

Company	CAPITAL STOCK APPROVED			Bonds approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Boston Consolidated Gas Company	-	-	-	\$10,500,000 00	Dec. 29
Boston Elevated Railway	-	-	-	2,700,000 00	Dec. 9
Boston Elevated Railway	-	-	-	1,956,000 00	Dec. 9
Boston, Revere Beach & Lynn Railroad Company	-	-	-	1,000,000 00	May 11
Boston, Worcester & New York Street Railway Company	\$2,026,000 ¹	\$100 00	\$2,026,000 00	1,008,000 00	Nov. 23
Cape and Vineyard Electric Company	200,000	100 00	200,000 00	-	Dec. 28
Chatham Water Company	150,000	100 00	150,000 00	-	June 25
Citizens' Gas, Electric & Power Company of Nantucket	75,000	100 00	75,000 00	-	May 6
Citizens' Gas Light Company	300,000	100 00	300,000 00	-	Jan. 5
Dedham Water Company	-	-	-	62,000 00	May 20
Dedham and Hyde Park Gas and Electric Light Company	125,000	31 25	156,250 00	-	May 25
East Taunton Street Railway Company	-	-	-	18,697 86 ²	April 8
Edgartown Water Company	-	-	-	32,500 00	Dec. 28
Edison Electric Illuminating Company of Boston	6,673,400	215 00	14,347,810 00	-	May 18
Fall River Gas Works	91,925	45 00	165,465 00	-	Mar. 11
Fitchburg & Leominster Street Railway Company	-	-	-	45,155 10 ²	Dec. 23
Fitchburg & Leominster Street Railway Company	-	-	-	45,120 45 ²	Apr. 13
Greenfield Gas Light Company	120,000	50 00	120,000 00	-	July 22
Harvard Electric Company	48,000	100 00	48,000 00	-	Mar. 4
Holyoke Power & Electric Company	35,000	100 00	35,000 00	-	July 22
Milford Water Company	-	-	-	225,000 00	Oct. 22
Mill River Electric Company	22,500	100 00	22,500 00	-	July 26
New Bedford Gas & Edison Light Company	-	-	-	762,000 00 ²	Oct. 28
New Bedford Gas & Edison Light Company	-	-	-	600,000 00	Oct. 28
New Salem Electric Company	3,250	25 00	3,250 00	-	Jan. 31
Norwich & Worcester Railroad Company	-	-	-	1,800,000 00	May 20
Old Colony Railroad Company	891,700	100 00 ³	891,700 00	-	June 6
Pittsfield Electric Company	40,000 ¹	25 00	40,000 00	-	Mar. 4
Salem Gas Light Company	323,825	31 25	404,781 25	-	June 10
Springfield Gas Light Company	647,925	45 00	1,662,650 00	-	Jan. 28
Springfield Street Railway Company	-	-	-	46,542 00 ²	June 21
Springfield Street Railway Company	-	-	-	956,134 60 ²	July 22
Springfield Street Railway Company	-	-	-	25,640 88 ²	July 26
West Boston Gas Company	350,000	25 00	350,000 00	-	Dec. 23
West Boston Gas Company	1,050,000	25 00	1,050,000 00	-	Oct. 28
Weston Water Company	30,000	100 00	30,000 00	-	Sept. 9
Worcester Consolidated Street Railway Company	-	-	-	5,172 00 ²	May 25
Worcester Consolidated Street Railway Company	-	-	-	46,583 75 ²	July 28

¹ Preferred. ² Notes. ³ To be sold at auction at not less than par.

LEGISLATIVE INVESTIGATIONS.

On January 17, 1927, the House of Representatives adopted an order providing for an investigation relative to (1) rates charged by gas and electric companies and municipal plants and (2) changes in the laws respecting the raising of new capital by said companies. Hearings were held on the subject matters of said resolve, and reports thereon were transmitted to the House of Representatives, the report on the first part of the order having been made on February 14, 1927, and on the second part of the order on March 14, 1927. (D. P. U. 2701, H. 1020, 1150)

On April 26, 1927, the House of Representatives adopted an order providing for an investigation relative to the Boston Elevated Railway Company. Report thereon was made to the House of Representatives on December 7, 1927. (D. P. U. 2834, H. 203)

Chapter 9 of the Resolves of 1927 provided for an investigation relative to the advisability of repealing the provisions of law requiring street and elevated railways to charge special rates for the transportation of school

pupils. Hearing was held on the subject matter of this resolve, and a report was made to the General Court on December 19, 1927. (D. P. U. 2836)

Chapter 39 of the Resolves of 1927 provided for an investigation relative to ways and means of providing revenues to cover in whole or in part the cost of service by the Department of Public Utilities. Hearing was held on the subject matter of said resolve, and a report thereon was made to the General Court on November 11, 1927. (D. P. U. 2861)

Chapter 45 of the Resolves of 1927 provided for an investigation relative to the emission of smoke, soot and cinders from chimneys, smoke stacks or like structures. Hearings were held on the subject matter of this resolve. Report was made to the General Court on January 5, 1927. (D. P. U. 2862)

LEGISLATION RECOMMENDED.

I.

During the past year the voting control of several of our public utilities has been obtained by holding trusts or associations, some of which trusts or associations are controlled by interests outside of the Commonwealth. In order to obtain control of the local companies the stock has been purchased by these Trusts or Associations at a very high figure and the dividends now paid by the local companies represent a small return upon the purchase price. These holding Associations or Trusts issue and sell trust shares to the general public, the price of which is dependent largely, if not entirely, upon the dividends paid by the local companies, or compensation received from them for services rendered by the Association or Trust in the management of the local companies. We believe that the purchase of the control of the local companies would ordinarily not take place except that the purchasers believed that they would be able to increase the rates for service and the dividend payments of the local companies, and that they would be protected in this increase by the Supreme Court of the United States under its construction of the Federal Constitution.

On the third day of June the Department made an order effective on the fifteenth day of June, 1927, reducing the net maximum price at which the Worcester Electric Light Company could sell electricity to 5 cents a kilowatt hour. The Company has refused to comply with the order, has brought proceedings in the Federal courts to set the order aside, and pending the determination of the case has secured a preliminary injunction restraining enforcement of the order.

In a special report of the Department made to the Honorable House of Representatives on March 14, 1927, this Department pointed out that it might be advisable in the future to enact legislation authorizing the operation of gas and electric companies under a contractual relationship with the public whereby the rates charged for service may be readily, efficiently and inexpensively regulated and adjusted. In that report the Department expressed the opinion that it would be time enough to consider such legislation in detail when it was definitely known to what extent we can under the Federal Constitution regulate public utilities using our highways.

The trend of events since the making of that report has caused us to change our views in regard to legislation at this time. Since the making of that report the Department has been constantly confronted in the determination of the fixation of rates with long, involved and expensive hearings in which the electric utilities have seriously presented the value of the property based upon the cost of reproduction less depreciation as a base upon which they were entitled to receive a return.

As pointed out above, in the Worcester Electric Light Company case, which was the largest and most important case heard during the year, the Company refused to obey the order of the Commission and resorted to the Federal courts. In addition the selling out of electric companies to

combines, as above referred to, has proceeded at a constantly accelerated pace. The indications are that practically every company whose rates are substantially reduced will resort to the Federal courts.

Common experience demonstrates that when such cases go to the Federal courts several years usually elapse before the matter is finally determined and in the meantime rates fixed by the Department, as has already been done in the Worcester case, may be suspended during that time. While it is true that, if the United States Supreme Court in the respective cases should finally uphold the order of the Department, the Company would be compelled to return the excess charges to the customers, it is a fact commonly known that customers move away or many of them do not obtain or attempt to obtain the refund due them.

The danger of the so-called United States Supreme Court doctrine being enforced in this Commonwealth is so great that we think that we should at this time make preparations to avoid the results of such a doctrine. This doctrine promotes greed and gluttony upon the part of the owners of public utilities. It asserts that the owners of the public utilities are entitled to retain and earn a profit upon excessive earnings which they may have exacted from the public. It asserts that the public has no real control over these utilities other than an ineffectual method of regulating rates, notwithstanding that the public gives to them exclusive rights in the highways and confers upon them the sovereign power to take private property by eminent domain. Moreover, it asserts that the property of the utility is increased in value by improvements in the public highways and that the owners of the utility are entitled to increased earnings by reason of these improvements and of the enhanced value upon its property resulting from the growth of the communities. It also asserts that the owners of the utility are entitled to earnings upon the reproduction value of the property less depreciation, notwithstanding the service performed by it could be performed as well, if not better, by property that would cost much less.

As a consequence we feel that the time is now ripe to enact legislation by which the companies engaged in the sale of gas and electricity in this Commonwealth shall enter into a contract with the Commonwealth so that their rates may be speedily and effectually regulated with fairness both to the company and the public, and whereby the investor will be guaranteed that in no event shall rates be so regulated that he cannot sell his securities to obtain his original investment. We accordingly recommend the enactment of a bill to accomplish this result.

Our proposed bill provides for a readjustment of the capital of any company which applies for such readjustment upon a basis which permits the capitalization of the premiums heretofore paid in and any earnings that have been plowed into the property at the expense of the stockholder who has not received on the average a return on his investment of seven per cent, provided also that it shall not be capitalized beyond its fair value as determined by the Department or beyond the amount expended for its property used and useful in the transaction of its business. The adjustment of its capital in accordance with the bill shall effect a contract with the Commonwealth by which the company agrees that it may be regulated by the Commonwealth in such manner as the Commonwealth may determine, so long as such regulation does not prevent it from paying dividends upon its stock adequate to maintain such stock at par.

The bill also provides that as to those companies which do not take advantage of the bill, the provisions of our statutes which require a municipality to purchase, if the company elects to sell, the latter's property located in the town before it can engage in the business of the sale of gas or electricity, shall not apply.

In addition the bill provides that as to such companies as do not elect to come under its provisions, they shall not be given the power to take property by eminent domain and they shall not have the power to increase their capital stock and bonds beyond what they are at present.

The bill also provides that all companies hereafter organized shall be subject to the provisions of the Act and that their organization shall effect a contract with the Commonwealth to that effect.

II.

REPEAL OF STREET RAILWAY COMMUTATION TAX.

The Department calls attention to the fact that the immunity given to street railways since 1919 from the payment of any commutation or excise tax under the provisions of Sections 62 to 65 of Chapter 63 of the General Laws, will expire at the end of the year 1928, and that therefore, unless some action is taken by this year's Legislature in respect to this matter, the tax will again come into effect at the beginning of the year 1929. Such relief from the payment of the commutation or excise tax was first granted by Chapter 370 of the Acts of 1919, which relieved the street railway companies from the payment of such tax during the year 1920 and 1921. By Chapter 406 of the Acts of 1921, the relief was continued for another two years, that is during the years 1922 and 1923. Chapter 452 of the Acts of 1923 continued the relief for a further period of five years, namely from 1924 to 1928, inclusive.

In February, 1919, the Public Service Commission of the Commonwealth filed a special report to the Legislature relative to the Street Railway Situation of the Commonwealth, pursuant to an order of the Legislature. Among other things, this report recommended the abolition of the commutation tax and submitted a draft of a bill including that among other forms of relief.

Later in the same year a special commission called the Street Railway Commission was appointed by Governor Coolidge under the provisions of Chapter 359 of the Acts of 1919 to make an investigation and study of the street railway situation in the Commonwealth, and to report its recommendation to the Legislature. Hon. Charles G. Washburn was Chairman of this Commission, which filed its report on November 15th, 1919, and among other things recommended the abolition of the commutation or excise tax. A special session of the Legislature was convened in November, 1919 to deal with the street railway situation, and among other forms of relief, enacted the first act, Chapter 370, Acts of 1919, relieving street railways for a period of two years from this tax.

This Department on April 1, 1921 in a special report to the Legislature (House Document No. 1495) recommended the abolition of the tax, and that recommendation was repeated in a report of this Department to the Legislature of 1923, House Document No. 133.

This Department now renews its recommendation that the commutation or excise tax should be permanently abolished. All the reasons that actuated the Department in its previous recommendations still have the same force, and in addition the Department feels that after the street railways have had immunity from the tax for nine years, it will be doubly hard upon them to be again required to pay the tax, especially in view of the fact that with nearly all street railways this period of nine years has been one of diminishing gross income.

Historically the excise or commutation tax was imposed by the Legislature upon all street railways except the Boston Elevated Railway Company by the provisions of Chapter 578 of the Acts of 1898. Previous to that time street railways had been subject to an obligation, among other things, to maintain and keep in repair that portion of the highway occupied by their rails and eighteen inches outside thereof. This obligation originated in the days of horse cars, when the horses undoubtedly wore out the portion of the highway between the rails. The provision about eighteen inches was due to the fact that in going around curves the horses frequently went outside the space between the rails, and in going up hills a third horse was used which travelled just outside one of the rails. The Legislature in 1898, following recommendations of a special committee ap-

pointed to consider the relations between street railways and municipalities, of which Charles Francis Adams was Chairman, relieved the street railways of this obligation of highway maintenance except in the case of original locations, but in *commutation* thereof, imposed the commutation or excise tax.

In fact the burden of highway maintenance for which this tax was substitute very shortly became out of date, because with the rapid increase in electrification and the consequent substitution of electric power for horses there was soon very little if any wear upon the portion of the highway occupied by the rails.

The Department recommends the passage of an act for the repeal of Sections 62 to 65 inclusive of Chapter 63 of the General Laws.

III.

GAS INSPECTOR AND ASSISTANT GAS INSPECTORS.

Section 13 of chapter 25 of the General Laws and so much of section 103 of chapter 164 of the General Laws as relates to the appointment of inspectors and assistant inspectors are now, in our judgment, obsolete. They are a relic of the time when the gas inspector was an independent official. Under section 76 of chapter 164 of the General Laws and section 9 of chapter 25 of the General Laws, this department has ample authority to control the inspection of gas and to appoint agents and employees to perform the work. Consequently, we recommend that section 13 of said chapter 25 and so much of section 103 of said chapter 164 as relates to the appointment of inspectors and assistant inspectors be repealed.

SURFACE STRUCTURE IN HARVARD SQUARE, CAMBRIDGE.

The surface structure in Harvard Square, Cambridge, for which provisions were made in Chapter 321 of the Acts of 1925 is fast approaching completion.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
LEWIS GOLDBERG,

Commissioners.

DIVISION REPORTS.

Accounting Division.

The utilities now under the jurisdiction of the Department number 399 companies, municipalities and voluntary associations as follows: Steam railroad companies, 30; street railway companies, 42; Bus companies, 53; telephone companies, 18; telegraph companies, 6; steamboat companies, 3; canal companies, 1; sleeping car companies, 1; voluntary associations, 16; express companies, 17; gas companies, 53; electric companies, 56; water companies, 53; municipalities, 44; manufacturing and other companies doing an electric business, 6.

These 399 utilities file annual returns which are carefully checked and corrected where errors or omissions occur, and in addition this division analyzes the accounts so returned, in order that uniform accounting, as prescribed by the Uniform Classification of Accounts shall obtain; and that accurate statements of financial and physical conditions may be secured.

This division has investigated expenditures for additions and betterments for capital increases by 17 gas and electric companies, six water companies, one steam railroad, necessitating careful examinations of the accounts and inspections of the properties.

The statistical information required for the annual report of the Department has been compiled, and such information and statistics asked for by the Commission and the general public has been supplied.

There has been a considerable number of violations of law by municipal lighting plants and gas and electric companies which may be briefly referred to, viz.;—municipal lighting plants whose margin of profit was greater than the legal rate of 8% as follows:

Belmont	17.44%	Middleborough	8.76%
Braintree	13.29%	Norwood	16.15%
Chicopee	12.14%	Peabody	21.74%
Groton	8.16%	Shrewsbury	8.95%
Hingham	11.53%	South Hadley	20.69%
Hudson	11.45%	Wellesley	19.94%
Marblehead	10.04%	West Boylston	9.05%
Merrimac	9.17%		

Municipal lighting plants and companies failing to file their annual returns within the proper time limit:

Municipal Lighting Plants.

Granville	Groveland	Middleton
Shrewsbury	Southwick	

Gas and Electric Companies.

Attleborough Steam and Electric Company
Strathmore Paper Company
Lynn Gas and Electric Company

Water Companies.

Ashfield Water Company	C. W. Hubbard Water Company (Auburndale)
Aspinwall Water Company	Monument Beach Water Works
Hill Water Company	Oxford Water Company

Engineering Division.

On August 31, 1927, Henry W. Hayes, Chief Engineer of the department, retired and William J. Keefe, Assistant Engineer since January 1, 1914, was promoted and made Chief Engineer. Arthur W. Hodges, an inspector of the department since February 1, 1912, was promoted and made Assistant Engineer.

During the year the division has investigated expenditures made or proposed on account of additions and betterments by the Boston Elevated Railway of the last three years, the Boston and Maine Railroad, the Norwich and Worcester Railroad and the Old Colony Railroad.

In connection with the rate case of the Hingham Water Company various studies have been made.

Plans for nine bridges carrying street railway tracks submitted for approval have been examined and the bridges have been inspected.

Under authority of chapter 321 of the Acts of 1925, contract, plans and specifications were completed for the surface structure in Harvard square, Cambridge, and submitted for bids, which were opened on October 18, 1927, and the contract awarded to Guiney & Hanson Construction Company, the lowest of five bidders. Work is now progressing rapidly and should be completed by the latter part of January, 1928.

In connection with railroad and railway signals, eight plans of interlocking plants were submitted, examined and approved.

In connection with the elimination of grade crossings, three hearings before a special commission were attended, and several cases of damages for land taken were investigated.

Valuations were made of the following street railways:

(1) Boston & Worcester Street Railway—Due to reorganization and ending of receivership.

(2) Boston Elevated Railway Company—Under a legislative order. Additional temporary engineers were employed and an intensive survey made of the property.

Gas and Electric Division.

During the past year 34 reports were made to the Commission concerning petitions brought under the compulsory supply statute, applications under the eminent domain statutes, and petitions for the authorization of securities. A large amount of time was required for the investigation of a few large security issues, and for the consideration of a few projects for the extension or improvement of service which came to the Department for action in an advisory capacity only. One hundred and ninety-six applications under the compulsory supply statute were disposed of informally without entry in the docket of the Department. There were about 300 more cases which were referred to the Department by the public or the companies or jointly, which should not be classified as complaints but rather as requests for the advice of a disinterested party or for assistance in working out some special problems. Field investigations were made in 55 cases.

As in previous years an examination was made of the results of the operation of municipal plants to determine compliance with the statutes relating to price and earnings. Statistics of the violations are given elsewhere but in view of the fact that there was a general price reduction by municipal plants during the year 1927, it should be noted that the reported violations are based upon the returns for the year 1926. Returns showing the improvement in 1927 have not yet become due.

COMPLAINTS AGAINST GAS, ELECTRIC AND WATER COMPANIES.

Although the number of complaints against gas, electric and water companies shows a substantial reduction from the figures of other years, the work involved in dealing with problems of public relations has not decreased. Our records show that companies are making steady progress in dealing with the problems which confronted them five years ago but a new set has recently arisen to which neither the public nor the companies have yet been accustomed. It is to this fact that the large number of non-complaint applications is to be attributed.

The new problems are in part due to changes in management, changes in the form of rates, to the adoption by some companies of less formal relationships with their customers, and to the growing tendency on the part of the public to build in outlying districts, and incidentally in too many instances to confide the work of house wiring to unreliable electricians.

Problems arising from changes in management and from the adoption of new forms of rates are probably only temporary but the unusual number of changes in management which have taken place recently have created a situation which requires watching. In the past year there were found numerous instances of unfamiliarity with those of the Massachusetts statutes which deal with the relations of the customer to the Company. For instance it was found that some companies were not paying interest on customers' deposits, or that others were shutting off the supply of delinquent customers without due compliance with the provisions of the law.

The change from the formal contractual relationship which defined with considerable exactness the relations of both parties to the informal relationship which exists between a consumer and most business concerns, although eliminating the delay and annoyance attendant on the previous

formalities, has placed a considerable burden on the adjustment divisions of those companies which have made the change. This may be a temporary matter but it may involve a permanent burden unless the public can be induced to take some notice or make use of the meters which are installed for its protection and convenience.

The problem of getting a supply of electricity for houses which have been built on unaccepted streets and that of getting out of the difficulties created by the employment of unreliable electricians must be dealt with by the public alone because neither the company nor this Department has authority to act. The Department can only indicate certain precautions which should be taken.

The difficulty in securing a supply of electricity on private ways usually results from the assumption that because the premises abut on a traveled way the company is enabled to extend its pole lines along the way, or that this Department can authorize it to do so. As a matter of fact, our experience shows that it is seldom that a deed to property on a private way is so worded as to give the owner the right to have poles erected for a supply of electricity. The old phraseology "the right to pass and repass" is not adequate to give this right. In order to have this right conveyed it is necessary to have conveyed in addition to the right to pass and repass, rights adequate to permit the erection and maintenance of pole lines, pipes and conduits, if the owner is to be enabled to secure service from the public utilities without securing the permission of other abutters along the way. If this kind of a deed is not secured, or failing it, if all the abutters whose land is affected do not consent to permit the company to install its lines, then service cannot be given. The company cannot trespass on private property nor can this Department order it to do so.

Somewhat similar are the problems arising from defective jobs of wiring. If house wiring is done poorly the municipal inspector will not issue to the company a permit to supply the premises, or in the absence of a municipal inspection ordinance, the company may be obliged to refuse to connect the premises in order to avoid the danger of fire or personal injury. Delay and expense are also sometimes occasioned when electricians do not consult the electric company about the proper location for service wires. These difficulties can be avoided by employing competent electricians and insisting that their work be done in co-operation with the electric company which is to give the supply.

The statistics relating to informal complaints are given in the following tables without discussion.

TABLE I.—*A General Analysis of Complaints Received During 1927.*

	Water Companies	All Gas Companies	Edison Company of Boston	All Other Electric Companies	Total
Quality of supply	2	1	—	—	3
Large bills	—	6	7	6	19
Errors in reading or billing	—	3	2	7	12
Supply shut off	—	10	10	8	28
Service required	1	32	56	33	122
Explanation of rates	—	—	2	—	2
Deposit requirements	—	3	1	4	8
Miscellaneous	—	1	—	1	2
Total,	3	56	78	59	196

TABLE II.—*Number of Complaints Against Certain Companies.*

	1922	1923	1924	1925	1926	1927
Arlington Gas	15	8	7	2	4	3
Boston Consolidated	97	55	24	12	15	10
Cape and Vineyard Electric	14	10	5	9	12	9
Central Massachusetts Electric	—	—	—	—	—	4
Charlestown Gas & Electric	14	10	6	4	4	7
Dedham and Hyde Park Gas	—	—	—	—	—	7
Edison of Boston	200	204	166	117	120	78
Edison of Brockton	5	3	2	2	3	3
Lawrence	7	4	6	2	3	4
Lowell Electric	13	16	15	12	5	3
Malden Gas	24	21	11	9	9	7
Marlboro Electric	10	4	—	2	2	4
Plymouth Electric	5	10	5	7	5	3
Quincy Electric	3	2	4	3	5	5
Suburban Gas and Electric	14	6	8	7	10	13
26 other companies against which there were						36
73 other companies against which there were						<i>None</i>
						196

Sixteen cases went to the Department* for formal action. Three of these cases are of special interest. In D. P. U. 2998 the question tried was whether or not the Company had the right to discontinue the supply of electricity because there was outstanding a bill for some other activity of the Company than supplying electricity. Cases D. P. U. 2844 and 2899 involved the question of the entry by one company into the territory which another company was supplying.

TEST OF ELECTRIC METERS.

On account of the small number of requests which have been made for the test of electric meters in recent years it seemed advisable to have a series of tests made for the information of the Department concerning the standards actually maintained by the companies. Random tests were made in the past year in the territory of several companies. The results were uniformly satisfactory. No fast meters were found. These tests are not reported in the data for meters tested on complaint of the consumers. Such tests show as usual that in the complaint about large bills the meters are very rarely at fault.

Seven meters were tested during the year. None were fast as defined by statute. The maximum fast error found was 3.0 per cent and the average fast error was 1.7 per cent. The maximum slow error was 10 per cent and the average slow error was 3.1 per cent. The fees amounted to \$45.00 and the cost of testing was \$66.80.

Gas Inspection Division.

The Gas Inspection Division, during the year ended November 30, 1927, inspected 119,652 gas meters and made 622 inspections of the quality of gas supplied by the 52 privately owned companies and the 4 municipalities. Eighteen gas pressure surveys were made during the year completing the work for the State. There were 81 special calorimeter thermometers calibrated, 23 calorimeter or experimental wet meters calibrated, and 9 meter provers inspected and calibrated. In conjunction with the Railroad Inspection Division, 28 gasoline-electric rail cars were examined for exemptions from the requirements regarding heating by stoves. The usual investigations of accidents and complaints were made.

An investigation bearing on the effect of high pressure transmission of gas was made at Pittsfield and Lee. Water gas from Pittsfield was

compressed to 14 lbs. and sent ten miles through a six inch main to Lee. The average Btu's at Pittsfield for six hours was 543.0 and for the same period at Lee 549.7.

The fees for examining gas meters collected and paid the State Treasurer totaled \$30,627.55, and the expenses of the Division were \$27,016.57.

All gas meters used to measure gas to consumers must be inspected and sealed, if correct. Of the 118,253 new or repaired meters, 136 were not sealed. The number of prepayment meters is decreasing, 6956 being inspected this year against 7214 last year. Meters in use are re-inspected on complaint of consumer or company. Of this class 1344 were examined, the average error of the registering meters being 1.38% fast (the legal limit for sealing as correct is 2%.) Nineteen meters of this class were defective; 518 meters were fast, the average error being 4.65% while more than half (53.4%) were correct.

The gas supplied by all companies and municipalities having 50 or more customers is inspected frequently and determinations made as to the compliance with the requirements, viz: 528 Btu's, 30 grains sulphur, 10 grains ammonia and absence of sulphuretted hydrogen. There were 90 violations of some of these conditions or 3.98%; last year the percentage was 5.45.

The following is the summary of accidents reported during the year:

Of those caused by gas, 231 were fatal and 263 non-fatal; 129 of the fatal cases appear to have been suicides, and 54 of the non-fatal were apparently due to suicidal intent. Of the fatal cases, one was apparently homicidal. Of the accidents caused by electricity, 22 were fatal and 79 non-fatal. Of the gas accidents, 5 non-fatal were to employees of the company. Seven of the fatal electric accidents and 39 of the non-fatal cases were employees of the companies.

Railroad and Railway Inspection Division.

The following report shows the work performed by this Division during the year ended November 30, 1927.

Three inspectors of this Division were assigned to the Engineering Division for several months to assist in making a valuation of the Boston Elevated Railway and the Boston and Worcester Street Railway.

COMPLAINTS.

The number of complaints received in connection with railroad operation was 204; in connection with street railway operation, 83; in connection with bus operation, 103. These complaints were investigated and adjusted by this Division, thus obviating the necessity of public hearings or conferences and the issuing of orders or memoranda by the Department.

INQUESTS.

The number of inquests in cases of death by accident attended by inspectors was 199.

RAILROADS.

Locomotives.

The number of locomotive inspections made at various times was 6,428. In 5,616 inspections no defects were found. In 812 cases locomotives were found defective because of steam leaking so as to obscure the vision of enginemen, or were found to have defective boilers, wheels, spark arresters, or ash pans. These defects were called to the attention of the proper officials and remedied.

The number of special examinations of spark arresters and ash pans was 3,544.

During the year 26 new engines were put into operation in Massachusetts, 20 on the Boston and Albany and six on the New York, New Haven

and Hartford Railroad. 152 engines were withdrawn from service—13 on the Boston and Albany, 60 on the Boston and Maine and 79 on the New York, New Haven and Hartford Railroad.

FROG AND SWITCH BLOCKING.

The number of pieces of foot blocking found to be missing or defective, called to the attention of proper officials and remedied, was 5,267.

BRIDGE GUARDS.

The number of bridge guards found defective, called to the attention of proper officials and remedied, was 1,683.

STEAM PASSENGER TRAIN EQUIPMENT.

The number of passenger coach inspections made during the year was 10,429. Of this number 161 were found defective with reference to wheels, brakes, lighting, car seat frames, missing emergency tools, or because of untidy conditions.

STEAM FREIGHT TRAIN EQUIPMENT.

The number of freight cars inspected and found to be in good condition was 6,128; found defective, 95. Caboose cars inspected and found without defects, 130; found defective, 11. Milk cars inspected and found in good condition, 48; found defective, 5.

PASSENGER STATIONS.

The number of inspections of passenger stations made at various times where stations were found to be in good or fair condition was 3,930. The number of stations found defective with reference to platforms, lavatories, or because of untidy conditions, and called to the attention of proper officials and remedied, was 281.

ACCIDENTS.

The number of fatal accidents to individuals on steam railroads investigated was 145. The number of serious personal injuries investigated was 149; crossing accidents investigated, 129; other accidents investigated, such as derailments and collisions, 78.

The number of persons killed and injured in the operation of railroads in Massachusetts during the year ended November 30, 1927, as reported by the several companies, is shown by the following table:

	Killed	Injured
Passengers	6	7
Employees	38	15
Travellers on highway at grade crossings	30	45
Trespassers	45	4
Others	6	—
Total	<u>125</u>	<u>71</u>

The number of employees killed and injured during the year, classified by character of employment, is shown by the following:

Character of Employment	Killed	Injured
Enginemen and firemen	5	3
Conductors and trainmen	7	8
Trackmen and laborers	7	1
Bridgemen	1	—
Shopmen	1	—
Crossingmen	3	—
Inspectors	2	—

Character of Employment	(continued)	Killed	Injured
Yardmen		—	1
Enginehousemen		1	1
Car cleaners		—	—
Carpenters		1	—
Machinists		2	—
Linemen		1	—
Signalmen		2	—
Others		5	1
Total		38	15

The following table shows the character of accidents to employees during the year:

Character of Accident	Killed	Injured
Collision	—	2
Derailment	3	2
Overhead or side obstruction	2	1
Coupling and uncoupling	—	2
Falling	1	—
Engine accidents	1	—
Walking on or crossing tracks	12	2
Getting on or off cars, etc.	4	3
Working on tracks, under cars, etc.	7	2
Shop accidents	1	—
Others	7	1
Total	38	15

The following table shows the number and character of accidents at grade crossings on the different railroads during the year:

Accidents at Grade Crossings During the Year Ended November 30, 1927.

Railroads	Protected Crossings			Unprotected Crossings				
	Number	Killed	Injured	Ratio of Accidents to Crossings	Number	Killed	Injured	Ratio of Accidents to Crossings
Boston & Albany	66	1	—	1 to 66	120	3	—	1 to 40
Boston & Maine	499	9	11	1 to 25	222	1	3	1 to 56
Boston, Revere Beach & Lynn	10	—	—	—	—	—	—	—
Hoosac Tunnel & Wilmington	—	—	—	—	2	—	—	—
Central Vermont	8	—	—	—	38	—	3	1 to 13
New York, New Haven & Hartford	429	4	15	1 to 23	313	12	13	1 to 13
Fore River	—	—	—	—	5	—	—	—
Total	1,012	14	26	1 to 25	700	16	19	1 to 20

STREET RAILWAYS.

Certificates for Operation.

The number of inspections of new street railway tracks made as a preliminary to issuing certificates for operation was 20.

Street Railway Equipment.

During the year 9,557 car inspections were made, and in 9,139 cases no defects were found. The number of cars found defective with reference to wheels, brakes, lighting, car seat frames, or because of untidy conditions, was 418.

Accidents.

The number of fatal accidents to individuals investigated was 74. The number of accidents caused by broken or loose wheels, broken journals and axles investigated was 20; miscellaneous accidents investigated, such

as collisions, personal injuries, and accidents caused by faulty operation, 311; accidents caused by spread rails, broken rails, defective special work, poor surface and alignment of track, 64.

Buses.

During the year 4,207 bus inspections were made. In 3241 cases no defects were found, and in 966 inspections buses were found defective or were not equipped in compliance with the regulations of the Department. There were 102 investigations of service and 40 investigations of illegal operation.

The number of fatal accidents to individuals investigated was 7; serious personal injuries, 13; other accidents, 57.

Bridges.

Owing to the abandonment of certain lines and the discontinuance of service on other lines, the exact number of railroad and street railway bridges in the Commonwealth of ten feet span and over can not be given. A total of 1801 inspections have been made during the year on railroad, street railway, private railroad and sidetrack bridges, which inspections are apportioned as follows:

	Number of Inspections
Railroads, main line	1,132
Street Railways	233
Sidetracks of railroads	417
Private railroads	19
Total,	1,801

For the most part, the time has been spent on the maintenance condition of steel and wooden structures and on known defects in permanent structures. The recent floods in the western part of the state caused serious damage to both steam railroad and street railway bridges and these have been given special attention.

During the year one steel, six pile and three wooden stringer railroad bridges have been rebuilt; three steel railroad bridges have been built on new locations; and two steel railroad bridges have been removed. One bridge carrying a street railway has also been rebuilt of concrete construction replacing a steel structure. In addition to the above renewals there have been extensive repairs made on both railroad and street railway bridges and a noticeable amount of treated timber has been used in this work.

Rate and Tariff Division.

Tariff changes during the twelve months ending November 30, 1927, were:

On steam roads, freight service, 969; passenger service, 267; electric street railways, freight, 73; passenger, 30; express, 56; telephone changes, 22; bus filings, 58; filings on rates for electricity, 248; gas, 30; water, 31, making a total of 1784 tariffs filed.

Telephone & Telegraph Division.

With a somewhat less total than the previous year, of cases requiring specific treatment by our inspection force, it was possible to do considerable work on service and plant matters.

With the work on new dial exchanges suspended for a period of years, the inspectors gave considerable time to observing service conditions, especially the results of the new direct trunking service which was referred to last year. The very noticeable improvement in service, both as to *accuracy and speed*, has raised the question as to whether the dial system is any improvement over the manual with direct trunking.

In the plant end, there has been improvement in time taken to restore out-of-order service which condition was bad during 1926 and the early part of 1927, particularly in the Metropolitan Division, where it frequently took days instead of hours to restore service.

In September the inspectors began a survey of the State to ascertain the number of people waiting for new service or for better grade of service. It was felt that the new rates authorized by the Commission in 1925 should have enabled the Company to take care of all new subscribers and to furnish the particular grade of service desired, except in isolated sections. In fact, this was one of the reasons stressed by the Company why it should have the increase.

Up to the end of the fiscal year the inspectors had covered the Springfield, Brockton, Fall River, New Bedford, Cape Cod and Essex County areas.

In the Springfield area a condition was found which indicated a great delay in the preparation and completion of necessary plant additions to take care of this important section of the State. As a result of the activities of the inspection force of the division, several hundred orders for new service and regrades were advanced several months and provisions made for taking care of many other cases for whom nothing was being done.

The same results were accomplished in the other exchanges visited although in several of these, conditions were not very bad.

For the first five months after the new schedule of rates was put into effect in 1925, there was a net loss in new stations in Massachusetts of 13,337 as against an estimated increase of 25,000 stations. For the full year of 1926 the net increase was 35,368 after an intensive campaign for new subscribers. This was against an estimate of 55,000. For ten months of 1927 there was a net loss of some 6,000 stations compared with the same period of 1926. The increase in net revenue was due to a substantial increase in toll business.

The revenue of the Company for 1926 showed a corporate surplus of \$335,398.00 and for the first nine months of 1927 a corporate surplus of \$671,779.00.

Cases handled during the year—1643.

Abatement of Smoke Division.

No changes have been made in the method of conducting the work imposed upon the Department by the provisions of chapter 651, of the Acts of 1910, for the regulation of smoke in Boston and vicinity, during the year which marks the completion of the fifteenth year under the final provisions of this act. The inspectors have made periodic and systematic observations throughout the district. Plant inspections have been made whenever the amount of smoke from any plant has seemed to indicate that a change had been made in the working conditions.

Prompt investigation has been made of all complaints received by the Department. Again this year there has been an increase in the number received, the total having grown from year to year until now it stands at six times the number received in 1923. Where investigation showed the emissions of smoke to be in excess of the allowable amount, suggestions for overcoming the difficulties were offered, and thereafter from time to time, more observations were taken to see if the conditions had been corrected and were continued. Where the missions were not found to be in excess of the allowable amount, that fact was reported to the complainant with the suggestion that the matter be taken up with the local Board of Health.

The oil burning plants, especially the smaller ones, continue to be a troublesome problem, although the total number of emissions in excess of the allowable amount on oil burning plants shows a slight decrease over last year. The percentage of oil violations has dropped from

fifty-four per cent of the total stationary violations last year to forty-six per cent this year.

The marine violations have increased slightly, whereas the locomotive violations have decreased nearly one-third.

It has been necessary to give one public hearing, but a formal order was not issued in this case. It has not been necessary to take any further action on the formal orders issued in previous years.

The following comparative tabulated summary shows the work of this Division for the year ending November 30, 1927, and the preceding year. Attention should be directed to the fact that again this year, of the total observations, those on which the emissions in excess of the allowable amount were noted for all classes of stacks, stationary, locomotives and marine—are less than one-half of one per cent.

Recorded observations:	1926	1927
Stationary stacks	91,816	91,838
Locomotive stacks	37,857	39,016
Marine stacks	2,713	2,719
Total	132,386	133,573

Observations recorded showing the emission of smoke in excess of the amount allowed by the act:		
Stationary stacks	179	189
Locomotive stacks	26	19
Marine stacks	7	9
Total	212	217

Percentage of observations in which emissions of smoke in excess of the amount allowed by the act were found:		
Stationary stacks . . . . .	.19	.21
Locomotive stacks . . . . .	.07	.05
Marine stacks . . . . .	.26	.33

Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the carelessness of those immediately responsible for their operation	77	98
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Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to overloading the plant	6	4
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Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the fuel situation	—	—
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Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, burning fuel oil	96	87
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Stationary stacks upon which recorded observations have been made may be classified as follows:

Public service	143	137
Manufacturing plants	830	843
Office buildings	924	985
Residences	15	13

Total	1,912	1,978
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Stationary stacks upon which recorded observations showed smoke emitted in excess of the amount allowed by the act may be classified as follows:

Public service	13	5
Manufacturing plants	40	50
Office buildings	49	59
Residences	—	—
	<hr/>	<hr/>
Total	102	114

Number of stacks found after first notice or visit of chief inspector to have ceased emitting smoke in excess of the amount allowed by the act

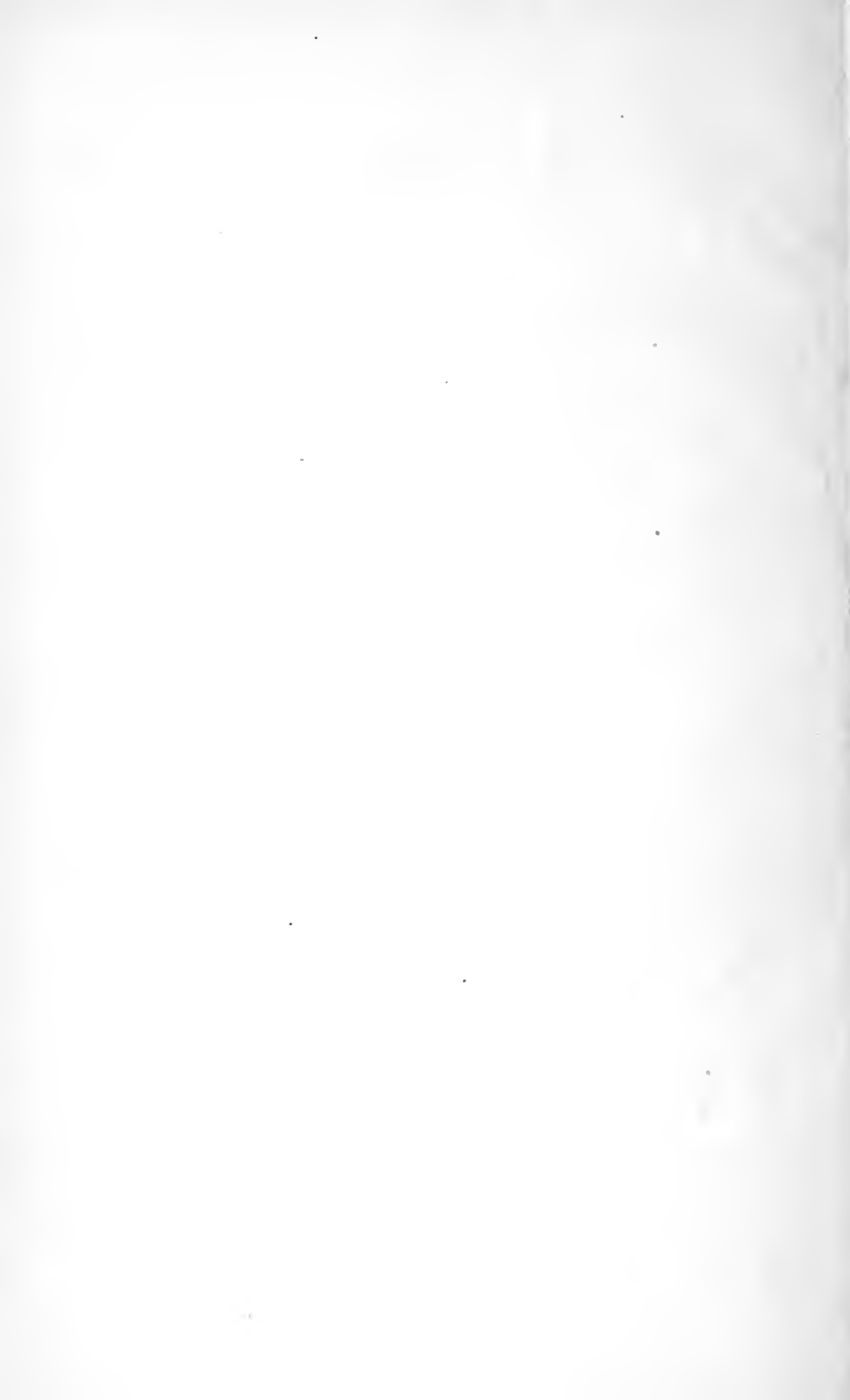
69 78

Additional number of stacks so found after further notice of visits

30 35

Number of stacks from which the emission of smoke contrary to the requirements of the act has been observed and had not ceased at at the close of the year:

Public service	2	—
Manufacturing plants	1	—
Office buildings	—	1
	<hr/>	<hr/>
Total	3	1



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The Commonwealth of Massachusetts

Annual Report

OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1928

COMMISSIONERS' REPORT



COMMISSIONERS' REPORT

C. Peter Clark, who had been Chief of the Rate and Tariff Division of the Public Service Commission from 1913 until the creation of the Department of Public Utilities in 1919 and Chief of the Rate and Tariff Division of this Department from 1919 to 1928, retired effective as of September 12, 1928. His long experience as a railroad official familiar with rates and tariffs and his ability along these lines made him a valuable officer of this Department and he rendered long, faithful and efficient service to the Commonwealth. He retired because he had reached the age limit prescribed by Statute and it was with regret that the Commissioners were compelled to lose his services.

Thomas Laffey, Railroad Inspector of the Public Service Commission from 1913 to 1919 and Railroad Inspector of this Department from 1919 to 1928, died on October 19, 1928. Prior to his becoming a Railroad Inspector, he had had years of practical railroad experience and he performed valued and expert work during his employment by the Commonwealth. By his death the Department lost a faithful, conscientious and able inspector.

The work of the Department has been carried on during the year covered by this report with no increase in the personnel of the employees.

During the year ended November 30, 1928, the Commission held 542 formal hearings and many informal hearings or conferences. In addition, 3144 complaints have been received which have been adjusted or are in process of adjustment.

A statement similar to that inserted in the annual reports of the eight preceding years follows, giving the number of companies, persons and municipalities under the jurisdiction of the Commission engaged in some form of public utility operation that have filed annual returns showing the result of their operations. There are 413 such companies, persons and municipalities, divided as follows:—steam railroad companies, 28; street railway companies, 42; bus companies, 59; telephone companies, 18; telegraph companies, 5; steamboat companies, 3; canal companies, 1; sleeping car companies, 1; voluntary associations, 28; express companies, 16; gas companies, 52; electric companies, 56; water companies, 54; municipalities, 45; manufacturing and other companies doing an electric business, 5.

Certificates of public convenience and necessity have been issued or granted to 43 individual operators engaged in the business of furnishing motor vehicle transportation in accordance with the provisions of Chapter 280 of the Acts of 1925 and amendments thereto.

The following indicates the volume of work requiring the attention of the Commission in 1928.

Petitions:—Railroad, 73; street railways, 78; telephone and telegraph, 7; gas, 72; electric, 99; water, 10; sale of securities, 10; motor vehicles, 49; total, 398.

Investigations:—Railroad, none; street railway, none; telephone and telegraph, 1; gas and electric, 6; sale of securities, 3196; smoke abatement, 1; motor vehicles, none; miscellaneous, none; total, 3204.

Complaints:—Railroad, 206; street railway, 49; bus, 86; telephone and telegraph, 1440; gas, 60; electric, 149; water, 4; sale of securities, 1150; total, 3144.

Applications for Special Permits:—Railroad, 80; street railway, 6; bus, 1; telephone and telegraph, 2; electric, 4; miscellaneous, none; total, 93.

RAILROADS.

The railroads operating in the Commonwealth, with the exception of the Central Vermont Railway and, possibly, the Boston, Revere Beach and Lynn Railroad Company, have continued their progress towards financial rehabilitation. As was forecast in our report of last year, the New York, New Haven and Hartford Railroad Company has resumed the payment of dividends, although not of an amount sufficient to bring its stock to par.

It is to be expected that during the coming year earnings available for dividends to bring its stock to par will be made. Notwithstanding the fact that the Boston and Maine Railroad has not resumed dividends upon its common stock, such stock has been selling in the open market at par, which reflects the very favorable gains in earnings of this railroad and which warrants the expectation that it, also, in the coming year will resume the payment of dividends upon its common stock. During the period that the railroads have been in process of rehabilitating their financial affairs, the public, as a whole, has shown a commendable spirit of co-operating in measures necessary to effect the result and has acquiesced in the curtailment of passenger service, the abandonment of stations and the reduction of facilities at many stations. The restoration of the financial credit of the railroads is likely to be followed by demands for the restoration of some of these facilities.

We think that we should point out that the future usefulness of railroads for transportation of passengers is to provide rapid transit, which cannot be provided if the trains are required to make stops at frequent intervals. In our judgment the passenger traffic on the railroads ought to be coördinated with street railway and bus operation, permitting the railroads to be operated for the furtherance of rapid transit. This can be accomplished only by infrequent stops at considerable distances, the local transportation to and from the stations at which the trains stop being provided either by street railways or motor vehicles. The maintenance of railroad stations at short intervals increases very materially the burdens imposed upon the railroads and decreases their effectiveness in the scheme of transportation.

Public demand for the elimination of grade crossings, we think, will also follow the restoration of the credit of the railroads. His Excellency, the Governor, in his inaugural, has suggested the desirability of the abolition of the more important and dangerous grade crossings. We think that the elimination of grade crossings in the future should be carried on more as a state policy than a local one. Heretofore the initiative as to the elimination of a grade crossing has been left largely to the municipality in which the grade crossing was situated. With the growth of the automobile traffic, and the consequent increased travel of the public over grade crossings, it would seem that the State, with propriety, might contribute more toward the cost of their elimination and thus relieve, to some extent, the burden that has heretofore been placed upon the railroad. In most states of the union the railroad is called upon to assume a less proportion of the cost than it is called upon to assume in Massachusetts. Where the State is furnishing a large amount of the cost of the elimination of crossings, it would seem to be desirable that a definite progressive policy should be established, to the end that the grade crossings on the main lines of the railroads and those upon the main through state highway routes should be eliminated before those of less importance. We think it desirable that some state board or agency should be clothed with the power of determining the order in which grade crossings should be eliminated, with the provision of expending on the part of the state definite annual amounts.

During the last year the Boston, Revere Beach and Lynn Railroad has been completely electrified, and it is hoped that through this electrification better service will be provided and the finances of the railroad improved. The results of the electrification of this road may throw some light upon the value of electrification of standard gauge roads, although it will not by any means follow that because of success through the electrification of the Boston, Revere Beach and Lynn Railroad it would be desirable to electrify standard gauge railroads. The two main savings in the costs of operation which will result from the operation of the Boston, Revere Beach and Lynn Railroad by electricity are (1) a reduction in labor costs, derived largely by reason of the savings of the layovers of engines and engine crews at its terminals which, because of the shortness of the line,

have been a very important factor in the operating costs of the railroad by steam; and (2) by the establishment of fare areas which require the payment by passengers of their fare before entering the area to take their trains. It should be borne in mind in considering the value of electrification as applied to standard gauge roads that the saving by reason of the layover of engines and engine crews would not be such an important factor and that the establishment of fare areas would be impracticable on the ordinary standard gauge road. Moreover, the prepayment system, adopted on the Boston, Revere Beach and Lynn Railroad, could have been adopted equally as well if the steam operation had been continued.

STREET RAILWAYS

No petitions were received during the year seeking reductions in fares. The Selectmen of Nahant filed a petition protesting against proposed increases in fares on the Nahant and Lynn Street Railway. After notice and public hearing the petition was dismissed and the proposed fares were allowed to go into effect.

We pointed out in our last annual report that there had been a marked increase in the abandonment of street railway tracks. This tendency has continued during the year covered by this report and street railway companies operating lines in country districts and thinly settled areas have continued to abandon street railway tracks, and to substitute bus service therefor. The Milford and Uxbridge Street Railway Company went into the hands of a Receiver, was reorganized and then abandoned all its street railway tracks substituting bus service therefor. The Middlesex and Boston Street Railway Company has continued to abandon street car service, substituting busses therefor. This company during the year has given up all street car operation in the city of Waltham. The Boston Elevated Railway Company has established more bus routes as feeders to its main lines. The municipally owned Norton, Taunton and Attleboro Street Railway Company has been abandoned and three other companies have gone into the territory formerly served by it, each taking a part thereof to be served by busses.

Due to business depression in the textile centres, street railway companies doing business therein have operated under trying conditions and there has been a considerable falling off in patronage.

As a whole, traffic on the Boston Elevated Railway Company has fallen slightly from that of last year. In general this is true of the other companies operating in the Commonwealth.

Service by means of motor busses is discussed more fully hereafter under the heading "Motor Transportation".

MOTOR TRANSPORTATION.

During the year the Department has granted certificates of public convenience and necessity to eleven operators of new bus lines, while sixty-nine additional certificates have been granted to holders of certificates, mainly street railway companies, for extensions of bus service. The certificates issued to new licensees, with one exception where transportation had previously been rendered by a street railway company, have been for lines wholly local in character and confined to the limits of single municipalities.

The Department has approved the transfer to other carriers of the certificates of three licensees. The certificates of two licensees have been revoked due to voluntary discontinuance of service. The certificates of four licensees have been revoked for violation of the regulations of the Department under the provisions of the motor bus law. One of these licensees appealed to the Supreme Judicial Court on the ground that the Department had no authority to impose conditions and restrictions as to the exercise of the power granted under the certificates. The Court sustained the power of the Department to impose such conditions and restrictions.

(See Roberto vs. Department of Public Utilities and another, advance sheets, opinions of the Supreme Judicial Court, p. 623.)

There are now eighty-nine motor bus companies operating in various sections of the State under certificates granted by the Department, including those operated by street railway companies and by subsidiaries of railroad corporations.

The Department has in preparation a new and more comprehensive classification of accounts and form of return for motor bus companies under its jurisdiction, which it hopes to make effective in the near future.

TELEPHONES.

The state-wide survey of telephone plant conditions begun in the fall of 1927 for the purpose of determining how many people were unable to get telephone service and how many had to submit to an inferior grade of service, was completed in April of this year. As a result of the activities of the inspectors of the Telephone Division, the number of people waiting for some kind of service was reduced from 1566 to 320 and the number of subscribers waiting for better grades of service from 4922 to 1937 in the same period.

After several conferences with the Department, the Telephone Company finally agreed to reduce the mileage charges to the extent of about \$100,000.00, effective March 1st. These charges bear heaviest on those who, because of their isolation from community centres, have the greatest need for telephone service. For this reason the Department has felt that these charges should receive its first consideration.

Many changes in base rate and exchange boundaries were worked out from time to time during the year. These changes eliminated mileage charges in many cases and substantial reduction of mileage in many others.

The Company has filed with the Department a change in the toll rate schedule, effective February 1, 1929, which will benefit subscribers in Massachusetts to the extent of about \$250,000.00 a year.

As a whole, we believe that telephone service has improved during the past year.

GAS, ELECTRIC AND WATER COMPANIES

Electric companies have had a prosperous year and their financial and physical conditions continue to improve. Dividends have been earned and paid and provisions have been made for depreciation and surplus. As we pointed out last year, there was a tendency toward voluntary reductions in the rates charged for electricity. This tendency has continued during 1928. Various petitions for reductions in the prices charged by gas and electric companies have been received and most of them, after hearing and consideration, have been decided, and a reduction in rates ordered. Some rate cases are still pending.

The companies engaged in furnishing gas have continued their efforts to promote the use of gas in industrial plants, and for heating, refrigerating and cooking. They have been met with increased competition in the more extensive manufacture and sale by electric companies of household appliances for cooking and similar services.

MUNICIPAL GAS AND ELECTRIC PLANTS.

We herewith set forth a list of the municipal gas and electric plants which, from reports filed in 1928 for the year 1927 appear to have violated the provisions of the Statute requiring them to reduce their rates, when the plants have earned a profit in excess of the eight per cent allowed by law.

Percentage of Profit Earned.

Belmont	24.24%	Marblehead	11.64%
Braintree	11.79%	Merrimac	9.22%
Chicopee	10.24%	Middleton	12.30%
Groveland	8.08%	Norwood	10.10%
Hingham	11.49%	Shrewsbury	9.26%
Holden	8.28%	South Hadley	15.71%
Hudson	9.84%	Wellesley	12.95%
Littleton	12.52%		

Many of the above plants have, during 1928, reduced their rates to such an extent that it is hoped that they are now complying with the law.

We also submit a list of gas, electric and water companies that have violated the law by failing to file their annual returns within the limit prescribed by law.

Municipal Lighting Plants.

Middleton

Gas and Electric Companies.

Western Massachusetts Electric Company

Water Companies.

Auburn Water Company

Lenox Water Company

Edgartown Water Company

Pottersville Water Works Co.

Francis B. Harrington Water Company

SALE OF SECURITIES.

In 1928, a total of 4550 salesmen and 850 brokers were registered. Fees for such registrations received and paid to the Treasurer of the Commonwealth amounted to \$51,600. 171 new applications for registration as brokers were approved and 21 such applications were disapproved; including members of firms, the number disapproved was 91. 1740 applications for new registrations as salesmen were approved and 56 such applications were disapproved. The sale in this Commonwealth during the year 1928 of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$187,343,000 has been forbidden by the Commission. Since the effective date of the Act (August 26, 1921) up to November 30, 1928, the proposed sale of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$2,044,990,634 has been prohibited. In 1928, twelve formal hearings were held on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. The registrations of 2 brokers and 159 salesmen were cancelled on the registers by orders of the Commission. The registrations of 1 broker and 68 salesmen were cancelled in accordance with their requests. In addition to the formal hearings mentioned above, some 1150 complaints were taken up and disposed of by the Sale of Securities Division of the Department. In connection with the registration of brokers and salesmen under the provisions of Chapter 487 of the Acts of 1924, 2046 investigations were made.

As stated in previous reports, we think that the provisions of the Sale of Securities Act have proved reasonably effective in preventing sales of fraudulent securities, fraudulent sales of securities and the conducting of the business of brokers and salesmen in a fraudulent manner. In connection with the report made to the Legislature in accordance with the provisions of Chapter 29 of the Resolves of 1928 (hereinafter referred to) we have suggested two amendments to the Sale of Securities Act for the purpose of improving the enforcement of the Act.

CAPITAL STOCK AND BONDS.

Fifty-one applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1928. The par value of the securities asked for was \$48,731,448.90, and the par value of the amount approved was \$43,200,498.90.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law.

Company	CAPITAL STOCK APPROVED			Bonds approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Abington & Rockland, Electric Light & Power Company of	\$141,750 00	\$40 00	\$226,800 00	-	June 8
Amesbury Electric Light Company	125,000 00	30 00	150,000 00	-	Oct. 8
Arlington Gas Light Company	700,000 00	125 00	\$75,000 00	-	Feb. 17
Attleboro Gas Light Company	29,000 00	150 00	43,500 00	-	Mar. 21
Blackstone Electric Light Company	40,000 00	100 00	40,000 00	-	Dec. 9
Boston and Albany Railroad	-	-	-	\$5,700,000 00	July 19
Boston Consolidated Gas Company	6,500,000 00	100 00	6,500,000 00	-	Mar. 9
Boston Consolidated Gas Company ¹	1,568,000 00	100 00	1,568,000 00	-	May 2
Boston, Revere Beach & Lynn Rail- road Company	170,000 00	100 00	170,000 00	1,000,000 00	Jan. 20
Brockton Gas Light Company	\$19,750 00	25 00	\$19,750 00	-	July 31
Central Massachusetts Electric Com- pany	300,000 00	115 00	345,000 00	-	Dec. 23
Charlmont Electric Light & Power Company	2,000 00	100 00	2,000 00	-	July 25
Dedham and Hyde Park Gas and Electric Light Company	125,000 00	25 00	125,000 00	-	July 13
Eastern Massachusetts Electric Com- pany	361,000 00	35 00	505,400 00	-	July 24
East Northfield Water Company	10,000 00	100 00	10,000 00	-	Jan. 23
Edison Electric Illuminating Com- pany of Brockton	\$07,000 00	45 00	1,452,600 00	-	June 8
Fieldston Water Company	25,000 00	100 00	25,000 00	-	Feb. 7
Fitchburg & Leominster Street Rail- way Company ²	-	-	-	22,473 90	Feb. 8
Fitchburg Gas and Electric Company	493,700 00	70 00	691,180 00	-	Nov. 9
Gloucester Electric Company	128,275 00	65 00	333,515 00	-	Oct. 8
Greenfield Electric Light & Power Company ³	75,000 00	25 00	75,000 00	-	May 7
Hampshire Electric Company	25,000 00	50 00	25,000 00	-	Nov. 9
Hampshire Electric Company	50,000 00	50 00	50,000 00	-	Mar. 1
Haverhill Electric Company	747,675 00	45 00	1,345,815 00	-	Aug. 1
Haverhill Gas Light Company	245,700 00	40 00	393,120 00	-	Nov. 9
Lexington Gas Light Company	60,000 00	100 00	60,000 00	-	June 15
Lynn Gas and Electric Company	487,500 00	75 00	1,462,500 00	-	Jan. 26
Malden and Melrose Gas Light Com- pany	1,062,425 00	25 00	1,062,425 00	-	July 24
Malden Electric Company	\$81,100 00	55 00	1,938,420 00	-	Aug. 2
Milford, Framingham, Hopedale and Uxbridge Street Railway Company	100,000 00	100 00	100,000 00	100,000 00	May 3
New England Power Company	900,000 00	30 00	1,080,000 00	-	Oct. 31
New York, New Haven & Hartford Railroad Company ²	-	-	-	17,000,000 00	Jan. 13
Norton Power and Electric Company	60,000 00	100 00	60,000 00	-	May 16
Norton Power and Electric Company	2,500 00	100 00	2,500 00	-	Aug. 2
Norwood Gas Light Company	31,000 00	100 00	31,000 00	-	Aug. 1
Norwood Gas Light Company	110,000 00	100 00	110,000 00	-	June 25
Old Colony Gas Company	51,000 00	25 00	51,000 00	-	Feb. 20
Old Colony Railroad Company	927,400 00	100 00	927,400 00	-	June 15
Pittsfield Electric Company ³	40,000 00	25 00	40,000 00	-	Feb. 10
Plymouth Electric Light Company	100,000 00	125 00	125,000 00	-	Aug. 2
Plymouth Gas Light Company ³	107,300 00	100 00	107,300 00	-	June 29
Randolph and Holbrook Power & Electric Company	127,500 00	30 00	153,000 00	-	July 31
Scituate Water Company ³	50,000 00	90 00	45,000 00	-	Feb. 29
Southeastern Massachusetts Power and Electric Company	95,000 00	30 00	114,000 00	-	July 31
Southern Berkshire Power and Elec- tric Company	125,000 00	40 00	200,000 00	-	June 25
Union Light and Power Company	60,000 00	120 00	72,000 00	-	Mar. 29
Union Light and Power Company	62,500 00	120 00	75,000 00	-	Oct. 23
Ware Electric Company	43,800 00	100 00	43,800 00	-	July 25
Webster and Southbridge Gas and Electric Company	250,000 00	40 00	400,000 00	-	Aug. 2
Weymouth Light and Power Com- pany	\$3,450 00	30 00	100,140 00	-	Jan. 13
Winchendon Electric Light and Power Company	71,700 00	100 00	71,700 00	-	July 25

¹ Issued to purchase Citizens' Gas Light Company of Quincy.² Notes.³ Preferred Stock.

LEGISLATIVE INVESTIGATIONS.

Chapter 301 of the Acts of 1928, being an Act enlarging the district to which certain laws relative to the emission of smoke shall apply and providing for further investigation relative to the emission of smoke in said district, further provides that this Department be directed to consider ways and means for more effectively abating the smoke nuisance in the district described in the Act and to make a report of its findings and recommendations together with drafts of legislation necessary to effect the same, to be filed with the Clerk of the House of Representatives not later than December 31, 1928. A hearing was held on the subject matter of this Act and a report was made and filed with the Clerk of the House of Representatives on December 12, 1928. Attached to this report proposed legislation relative to the emission of smoke in the city of Boston and vicinity was filed.

Chapter 29 of the Resolves of 1928 provides for an investigation by the Board of Bank Incorporation and the Department of Public Utilities acting jointly relative to the regulation and control of Investment Trusts and the better enforcement of the Sale of Securities Act so-called. A public hearing and conferences were held on the subject matter of this Resolve and a report was made to the General Court on December 5, 1928.

Chapter 49 of the Resolves of 1928 provides for an investigation by the Department of Public Utilities relative to the regulation and supervision of gas and electric companies. Said Resolve further provides that the Department report to the General Court the results of its investigation thereunder and its recommendations, if any, on the subject matter thereof together with drafts of legislation necessary to carry its recommendations into effect by including the same as a part of its annual report for the year 1928. A hearing was held on the subject matter of this Resolve and a report was made to the General Court on December 14, 1928. A copy of this report and the recommendations contained therein together with drafts of legislation necessary to carry such recommendations into effect is included in this report under the heading "Legislation Recommended".

LEGISLATION RECOMMENDED.

In accordance with the provisions of Chapter 49 of the Resolves of 1928, which provides for an investigation by the Department of Public Utilities relative to the regulation and supervision of gas and electric companies, the Department has held public hearings and made investigation upon the subject matter of the Resolve.

The Resolve is as follows:

Resolve providing for an Investigation by the Department of Public Utilities relative to the Regulation and Supervision of Gas and Electric Companies.

Resolved, That the department of public utilities shall investigate ways and means for regulating, in such manner as will be fair alike to the public and to gas and electric companies, their rates, valuations and capital issues, and in connection therewith shall consider the recommendations relative to such companies contained in the inaugural address of his excellency, the governor, printed as senate document number one, and its first recommendation appearing in house document number one hundred and sixty-nine, accompanied by house document number one hundred and seventy, all of the current year. Said department shall hold hearings if in its opinion such hearings will be helpful to it in conducting such investigation. It shall report to the general court the results of its investigation hereunder and its recommendations, if any, on the subject matter hereof, together with drafts of legislation necessary to carry its recommendations into effect, by including the same as a part of its annual report for the current year.

The portion of the address of His Excellency, the Governor, referred to in the Resolve, reads as follows:

"The Department of Public Utilities has recommended the enactment of legislation providing for a contract between gas and electric companies and the Commonwealth, whereby the companies agree to become subject to regulation and supervision in such manner as the Commonwealth may from time to time determine. Such regulation, however, under the proposed bill is not to be exercised in such manner as to prevent the companies from earning equitable dividends. As to such companies as refuse to enter into such contract, the restriction upon municipalities from entering into the gas or electric business without first buying the property of the company is to be removed and such companies are to issue no further stock or bonds or to exercise hereafter the right of eminent domain. In view of the growing tendency of holding companies and associations to acquire the control of the local companies, the time is now ripe for the enactment of this or similar legislation to retain in Massachusetts the present policy of regulation."

The recommendation of the Department referred to in said Resolve was a recommendation for the enactment of a bill providing for a readjustment of the capital of any company, which applied for such readjustment, upon a basis which permitted such company to capitalize the premiums theretofore paid in on its capital stock and any earnings that had been ploughed into its property at the expense of those stockholders who had not received on the average a return on their investment of 7 per cent, provided that the capital should not exceed the fair value of its property used and useful in the transaction of its business, as determined by the Department or exceed the amount that had been expended therefor, less any outstanding indebtedness. This adjustment of its capital in accordance with the terms of the bill should effect a contract with the Commonwealth by which the company should agree that it might be regulated by the Commonwealth in such manner as the Commonwealth might determine, so long as such regulation did not prevent it from paying dividends upon its stock adequate to maintain the market value of such stock at par. The bill also provided that the provisions of our statutes, which require a municipality, before it engages in the business of the sale of gas or electricity, to purchase the property of a company located in the municipality, if the latter elects to sell, should not apply to those companies which do not take advantage of the Act. Thus, it will be observed that both the recommendation of His Excellency, The Governor, and the recommendation of the Department relate to the same subject matter.

We have further investigated and carefully considered the subject matter of our last annual report and, after deliberation, we have not changed our views in the matter.

As we understand it, the proposal recommended by us last year and in substance commended by His Excellency, the Governor, did not meet with the approval of the Legislature, for the reason that the committee, to which the bill was referred, was of the opinion that such a proposition would be unconstitutional under the provisions of the Federal Constitution.

While the Committee agreed, as we understand, that the State could enter into a contract with gas and electric companies, they believed that a statute, construed as forcing a company into a contract, would be declared unconstitutional as coercive, and they were of the opinion that the bill recommended by us might be so construed. In our judgment, the proposition recommended by the Department last year would not be so construed and would not be unconstitutional. We are fortified in this view by the hostility of the gas and electric companies themselves to the proposition. If the companies were sincere in their belief that the Act was unconstitutional, we very much doubt that they would oppose the proposition, as it would enable them to capitalize their premiums, and, to a certain extent, their surpluses, which they have contended for for some years, and then later to escape from the burdens of the Act on the ground that

they were not bound by reason of its unconstitutionality. However, in view of the attitude of the Committee and of the action of the Legislature, we suggest, in connection with the proposals we made last year, an alternative proposal by which any question of unconstitutionality of the proposition may be avoided.

The present statutes now require the municipalities, before entering into the business of the manufacture and sale of gas and electricity, to purchase of the company then engaged in the territorial limits of the municipality, such property of the company as is suitable for and is used in connection with such business, if the company elects to sell. Moreover, if the municipality desires to engage in the business of electricity alone or gas alone, it must nevertheless buy, if the local company so elects, both the electric and gas property of the company doing business within its territorial limit and doing both classes of business.

It was contended that as the proposed bill made these provisions applicable only to those companies which entered into a contract with the State, it would, in effect, coerce all companies to enter into the contract as they would otherwise lose this valuable safeguard and thus render it unconstitutional.

We believe that when the State grants a monopoly to a public service corporation, the company ought not to object to reasonable and speedy regulation. Its insistence upon the right of monopoly and at the same time upon practical freedom from regulation is an attitude which is not compatible with the welfare of the Commonwealth.

Under the Federal rule, as generally understood, where a company appeals to the Federal court from the judgment of a state commission, the court appoints a master to determine the value of the property employed in the undertaking and whether or not the amount of return allowed by the state commission is reasonably adequate. Thus, the master is appointed to determine the very facts which the state commission itself is created by law to determine. The master ordinarily is less experienced in public utility matters than the state commission. His judgment ordinarily is taken by the court as conclusive, and, as a consequence, the state commission, in order to meet the determination of the master, is required to stultify itself and make a decision which is contrary to its honest judgment, or if it makes a decision according to its honest judgment there can be no regulation effected where its judgment is different from that of the master. This follows from the fact that the court has no power to fix rates, but only the power to set aside the judgment of the state authority. Thus, by repeated appeals from the honest judgment of the commission which may be set aside repeatedly, no rates are established and regulation under the Federal rule becomes a farce unless and until the state tribunal is willing to forego its honest judgment for that of the master.

This so-called Federal rule which substitutes the judgment of the Federal master on the value of the company's property and, consequently, on the rate of return which the corporation is entitled to, in place of the judgment of the duly constituted state authority appointed to determine that question, together with the consequent delays and expenses, both to the State and to the company, both of which in the final analysis must be paid by the consumer, justifies efforts upon the part of the State to establish some method to avoid such a situation. If some method cannot be devised to avoid unreasonable litigation on the part of the companies, we think that sentiment will, and should, rapidly grow in favor of public ownership.

We think it plain that the provisions of our statutes requiring municipalities, if the companies so elect, to purchase their property, in no way effect a contract with the companies now doing business, and that there is no question but that these statutes may be repealed at the will of the Legislature. In order to remove the objection raised last year, we deem it wise that these statutes should be this year repealed by the General Court, if the Legislature is of the same mind as last year as to the uncon-

stitutionality of the suggested bill, leaving for future consideration the passing of statutes arranging for contractual relationship between the State and gas and electric companies. As a consequence, we recommend for the further consideration of the Legislature two alternative proposals, which we append:

(1) A bill substantially in the same form as the one recommended last year, marked "A".

(2) A bill to repeal the present statutes requiring municipalities to purchase the property of local companies if the municipalities determine to engage in the business, marked "B".

In our proposal recommended last year, there was a provision that such companies as did not enter into contractual relations with the Commonwealth could not increase their capital stock except by special act of the Legislature and could not exercise the power of eminent domain. Both of these provisions were attacked by the representatives of the companies on the ground of unconstitutionality. While we are still of the opinion that both of these provisions are constitutional, we feel that neither of them is of sufficient importance to warrant serious controversy, particularly as the exercise of eminent domain is now subject to the approval of the Department. As a consequence, we have omitted these two provisions from the bill we submit this year.

In our report last year we recommended that the bill be made applicable to all gas and electric companies to be organized in the future. As to these, obviously there was no constitutional difficulty. If the Legislature should feel that it is more advisable to adopt our second alternative at this time, and to deal with a contractual relation at some future date with respect to existing companies, we are of the opinion that legislation as to companies hereafter to be organized ought likewise to be deferred until such time as legislation applicable to all companies is enacted, as this would tend to uniformity in legislation.

In the consideration of the subject we have not only held hearings, but we have also, at the request of some of the larger companies, held several conferences. At these conferences, the representatives of the companies indicated a disposition to enter voluntarily into contracts with the Commonwealth, provided that the basis of the capitalization was upon the book cost of the property rather than upon the stock plus the premiums and plus that proportion of the surplus which would give to the stockholders an average of 7 per cent dividend. This would be a recognition that the surplus of the companies belonged entirely to the stockholders and should be used as a basis of rates of the company. This is somewhat contrary to the prevailing thought in this Commonwealth, but it is a basis which, if availed of at the present time, is less than that apparently allowed in the recent decisions of the United States Supreme Court. We have been unable sufficiently to agree to the details of this suggestion and the basis upon which the suggestion is made to warrant us in recommending any bill at the present time to that effect. If, however, the Legislature should be of the opinion that these suggestions of the companies form a proper basis for legislation of a contractual nature, the bill we recommend can be readily modified to accomplish that result.

AN ACT RELATIVE TO THE REGULATION AND SUPERVISION OF GAS AND ELECTRIC COMPANIES.

SECTION 1. Upon application of a gas or electric company, authorized by a vote of the majority in interest of all its stock qualified to vote for the election of directors, the department of public utilities may authorize the company to adjust its capital so that the par value of its capital stock will approximate, as nearly as may be, the amount theretofore paid into its treasury on account of the issue of its capital stock, plus the amount, where such company has not paid dividends averaging seven per cent annually upon the par value of its capital stock and premiums paid thereon

from the time of its organization, by which it has failed to so pay dividends averaging seven per cent annually; *provided, however*, that the capital shall not be fixed at an amount in excess of the amount that has been expended by such company for its property used and useful in the transaction of its business, less any outstanding indebtedness, or in excess of the fair value thereof, less any outstanding indebtedness. In the determination of whether such company has paid dividends averaging seven per cent annually upon the par value of its capital stock, such per cent shall be calculated each year upon the amount of capital stock outstanding in such year and the premiums paid in thereon. The number and classes of shares of stock to be issued shall be subject to the approval of the department. Fractional shares shall not be issued, but the department may authorize full shares to be issued upon the payment to the company, by the person entitled to a fractional share, of the difference between such fraction and the par value of the shares. Such adjustment shall be made within six months after such authorization by the department, or such authorization and any action taken thereunder shall become null and void.

SECTION 2. The adjustment of its capital stock under the provisions of this act by a gas or electric company shall effect an amendment of its charter and a contract between it and the Commonwealth by which the company agrees to be subject to and bound by such rates and charges for service as may be hereafter prescribed by the Commonwealth or its duly authorized officers or agents, *provided*, that such regulation and supervision shall not be exercised so as to reduce the income of the company below an amount necessary to enable it to pay dividends sufficient to maintain the market value of its shares of capital stock at their par value.

SECTION 3. The provisions of sections forty-two, forty-three, forty-four, forty-five, forty-six, forty-seven, forty-eight, forty-nine, fifty-two and sixty-seven of chapter one hundred and sixty-four of the General Laws and acts in amendment thereof or in addition thereto shall not apply to gas or electric companies organized prior to the passage of this act except such as petition for the adjustment of their capital stock within six months of the effective date of this act and adjust their capital stock under the provisions of this act within six months of the order of the department.

SECTION 4. Gas and electric companies organized after the passage of this act shall, as a provision of their charters, be subject to and bound by such rates and charges for service as may be hereafter prescribed by the Commonwealth or its duly authorized officers or agents, in the same manner as corporations which have their capital readjusted under the provisions of this act, and their organization shall effect a contract to that effect, and they shall also be subject to the duties, liabilities and restrictions set forth in general laws of this commonwealth now or hereafter in force relating to gas and electric companies.

SECTION 5. So much of section eighteen of chapter one hundred and sixty-four of the General Laws as provides that the department may fix the price at which shares of stock may be issued if it deems that the price fixed by the directors is so low as to be inconsistent with the public interest shall be inapplicable to such gas and electric companies as readjust their capital stock under the provisions of section one of this act or are organized after the passage of this act, except that such shares shall not be issued for less than their par value.

AN ACT RELATIVE TO MUNICIPAL LIGHTING PLANTS.

SECTION 1. Sections forty-two, forty-three and forty-four of chapter one hundred and sixty-four of the General Laws are hereby repealed except for the purposes of section forty-seven as hereinafter amended.

SECTION 2. Sections forty-five, forty-six, forty-eight and forty-nine of said chapter one hundred sixty-four are hereby repealed.

SECTION 3. Section forty-seven of said chapter one hundred and sixty-

four is hereby amended by striking out in the fourth line thereof the words "or a private corporation therein", so as to read as follows: *Section 47.* The department may, after notice and a public hearing, authorize a town which has acquired a municipal lighting plant to extend its mains or lines into an adjoining town in order to distribute and sell gas or electricity therein, if such town is not then supplying such town with gas or electricity, as the case may be. Such authorization shall be upon such terms and with such limitations and restrictions as the department deems for the public interest. A town so authorized shall thereafter have in such adjoining town the same rights and privileges, and be subject to the same limitations and obligations, as it has within its own territorial limits. If the adjoining town shall vote to establish a gas or electric plant, it shall, under sections forty-two, forty-three and forty-four, purchase the plant and property within its limits owned by the other town, which, within thirty days after demand filed with its clerk, shall file with the clerk of the purchasing town the schedule required by section forty-three, and shall sell the same; and thereupon its rights to maintain a gas or electric plant or to sell gas or electricity within the limits of the purchasing town shall cease as to the plant sold.

SECTION 4. Section fifty-two of said chapter one hundred and sixty-four is hereby amended by striking out in the first and second lines thereof the words "in which no person or corporation is engaged in generating or distributing electricity for sale and", so as to read as follows: *Section 52.* A town which has voted or shall vote to construct one or more plants for the manufacture or distribution of electricity for municipal use or for the use of its inhabitants, or for both purposes, may make contracts, for terms not exceeding ten years, with any street railway company operating a street railway in such town, for the purchase of electricity from such company in order to furnish electricity for municipal use or for the use of its inhabitants, or both; and street railway companies may make contracts to furnish electricity as aforesaid to a town, but the contracts shall not become operative unless the department shall, after a public hearing, approve the terms thereof as consistent with the public interest. This and the three following sections shall not apply to cities.

SECTION 5. Section sixty-seven of said chapter one hundred and sixty-four is hereby amended by striking out the last sentence thereof, so as to read as follows: *Section 67.* No town having within its limits the main gas works or the central electric station, or the major portion of the wires, poles, conduits or pipes used in connection with any such works or plant, shall, except for a violation of the terms or conditions upon which the same were granted or for a violation of law respecting the exercise thereof, revoke any rights granted to any person or corporation engaged in manufacturing or distributing gas or electricity for sale after the introduction of the first vote authorizing the establishment of a gas or electric plant in a city council under section thirty-five or after the calling of a town meeting under a warrant including an article on the passage of such vote, until the proceedings so begun have been finally determined by granting or denying authority to establish such plant.

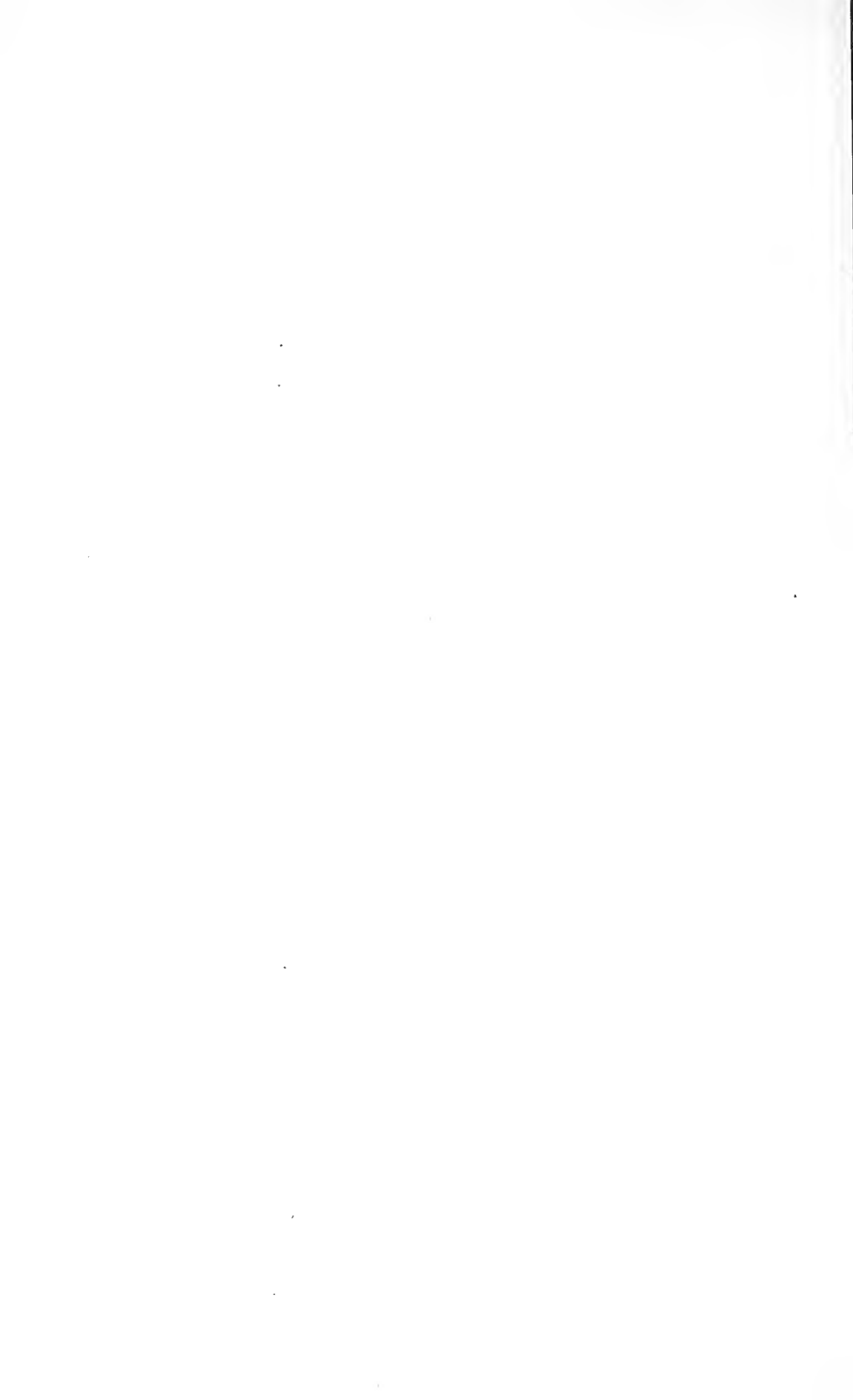
SURFACE STRUCTURE IN HARVARD SQUARE, CAMBRIDGE.

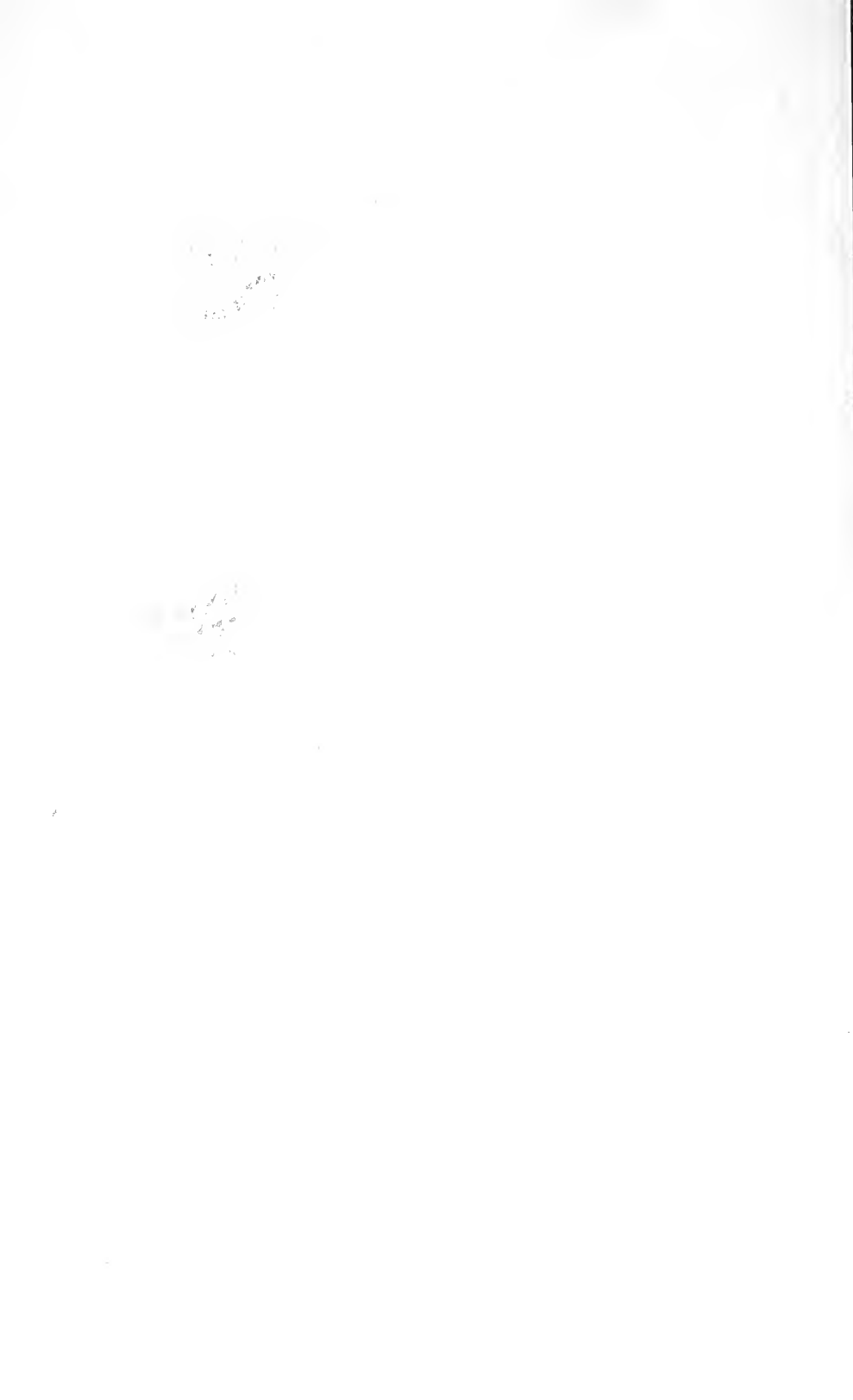
In accordance with the provisions of Chapter 321 of the Acts of 1925 the old surface structure station in Harvard Square was demolished and a new station substituted in 1928 which met with the approval of all parties concerned.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
LEWIS GOLDBERG,

Commissioners.







ASS.
OCS.
OLL.

The Commonwealth of Massachusetts

Annual Report

OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1929

COMMISSIONERS' REPORT



COMMISSIONERS' REPORT

Timothy A. Connor, Locomotive Inspector of the Public Service Commission from 1913 to 1919 and Senior Locomotive Inspector of this Department from 1919 to 1929, died on March 29, 1929. Prior to his becoming a Locomotive Inspector, he had years of practical experience as a machinist with the Boston and Maine Railroad. He rendered valued and expert work for the Department and by his death the Department has lost a faithful, conscientious and able inspector. John K. Cormack was appointed to the vacancy caused by Mr. Connor's death.

The work of the Department has been carried on during the year covered by this report with no increase in the personnel of the employees. Mr. William H. Kirley was appointed an Inspector on February 18, 1929, taking the place of Thomas Laffey who died in the latter part of 1928.

During the year ended November 30, 1929, the Commission held 462 formal hearings and numerous informal hearings or conferences. In addition, 3,083 complaints have been received which have been or are being adjusted.

A statement similar to that inserted in the annual reports of the nine preceding years follows, giving the number of companies, persons and municipalities under the jurisdiction of the Commission engaged in some form of public utility operation that have filed annual returns showing the result of their operations. There are 416 such companies, persons and municipalities, divided as follows:—steam railroad companies, 28; street railway companies, 38; bus companies, 65; telephone companies, 18; telegraph companies, 5; steamboat companies, 3; sleeping car companies, 1; voluntary associations, 32; express companies, 14; gas companies, 52; electric companies, 57; water companies, 53; municipalities, 45; manufacturing and other companies doing an electric business, 5.

Certificates of public convenience and necessity have been issued or granted during the year to 28 operators engaged in the business of furnishing motor vehicle transportation in accordance with the provisions of Chapter 280 of the Acts of 1925 and amendments thereto.

The following indicates the volume of work requiring the attention of the Commission in 1929:

Petitions: Railroad, 91; street railway, 60; telephone and telegraph, 4; gas, 67; electric, 74; water, 15; sale of securities, 5; motor vehicle, 85; total, 401.

Investigations: Railroad, none; street railway, 1; telephone and telegraph, none; gas, 1; electric, 1; sale of securities, 2,136; smoke abatement, none; motor vehicle, 4; miscellaneous, none; total, 2,143.

Complaints: Railroad, 196; street railway, 37; bus, 104; telephone and telegraph, 1,255; gas, 77; electric, 193; water, 11; sale of securities, 1,210; total, 3,083.

Applications for Special Permits: Railroad, 125; street railway, 9; bus 2; water, 1; electric, 3; miscellaneous, 5; total, 145.

RAILROADS

On the whole the railroads operating in the Commonwealth have had a prosperous year, with the exception of the Central Vermont Railway and, possibly, the Boston, Revere Beach and Lynn Railroad Company. The New York, New Haven and Hartford Railroad Company and the Boston and Maine Railroad have strengthened their financial positions. The New York, New Haven and Hartford Railroad Company has resumed payment of dividends on its common stock at the rate of 6 per cent, and there is every indication that it will be able to maintain this dividend. While the Boston and Maine Railroad has not resumed the payment of dividends on its common stock, it has, during the last year, made very extensive improvements on its road which will improve the service thereon and enable it to move its traffic more economically.

The passenger revenue on the Boston and Maine, the Boston and Albany and the New York, New Haven and Hartford railroads has continued to

shrink during the last year. However, the falling off in the passenger revenue has not been so marked as in previous years, and it is hoped that the trend of reduced revenues from this source will in the near future be arrested.

The experience of the New England railroads in the last several years indicates that they can be made self-sustaining, and that there is no occasion, so far as the interests of the people of New England are concerned, for their consolidation with other systems at the present time. When the Transportation Act was passed in 1920, terminating federal control of the railroads, provision was made that the Interstate Commerce Commission should prepare a plan for the consolidation of the railroads into a limited number of systems, in such a way that competition should be preserved as fully as possible, and that, wherever practicable, the existing routes and channels of trade and commerce should be maintained. At the time of the return of the railroads to private control the New England railroads were in a very bad financial condition, and the service furnished by them was poor. As a consequence, there were many of our people who felt that the sooner our New England railroads could be consolidated with stronger systems the better it would be for the interests of the people in New England. In fact, there was a very pronounced view, upon the part of the financial interests, that there was little hope of rehabilitating the New England railroads without the assistance of strong transcontinental systems. Experience indicates that these views were wrong, and we have the conviction that there is, at the present time, no advantage to the people of New England in the consolidation of any of the New England railroads with other systems except possibly in a New England system. The Interstate Commerce Commission has prepared a plan for the consolidation of the railroads of the country which does not permit of the consolidation of the New England railroads in a New England system. There is no provision in the Transportation Act by which the railroads falling within the several groups provided in the plan are required to consolidate. Consequently, we feel that unless conditions materially change, it is better that the New England railroads remain as they are.

The Boston, Revere Beach and Lynn Railroad has now operated by electric power for over a year. The result of its operation thus far has not been as favorable as the railroad expected when electrification was undertaken. This has been due in part to the failure to increase the revenue of the road as much as anticipated and in part to the cost of the electrification being larger than expected, with the consequent larger interest burden to carry.

STREET RAILWAYS

Street railway companies operating in country districts and thinly settled areas have continued to abandon street railway tracks and to substitute bus service therefor. The Middlesex and Boston Street Railway Company has given up or will soon give up all street car operation and service through the entire system will be operated by means of busses. The situation on the Eastern Massachusetts Street Railway remains similar to what it was last year. There has been on this system no marked abandonment of street railway tracks and no marked substitution of bus service therefor during the year covered by this report. The Boston Elevated Railway Company has continued to establish more bus routes as feeders to its main lines, abandoning trackage formerly used for street railway service. The street railway companies doing business in the cities of Worcester and Springfield have about held their own. Business in the textile centres, owing to the continued depression, has not improved. The Union Street Railway Company will endeavor to meet this situation in New Bedford by the use of new equipment. We understand that that company will use newer and lighter cars that can be operated more economically.

Service by means of busses has passed beyond the experimental stage, but it does not follow that such service can eliminate or be a satisfactory substitute for street car service where the traffic is dense. Electric surface cars are still a highly important factor, probably the most important factor

in a city's transportation system. The best method of surface transportation for thickly populated city areas will be a combination of trolley and bus.

Service by means of motor busses is discussed more fully hereafter under the heading "Motor Transportation."

MOTOR TRANSPORTATION

During the year the Department granted certificates of public convenience and necessity to nine operators of new bus lines, while sixty-four certificates have been granted for additional routes of licensees. The certificates granted to new licensees cover routes which are mainly local in character. The additional certificates granted cover routes which are, in the main, supplemental to existing service. The Department has approved the transfer of one certificate to another licensee and the certificates of five licensees have been revoked on account of permanent discontinuance of service. One application for a certificate has been denied.

There are now ninety-two motor bus licensees operating in various sections of the State under certificates granted by the Department, including those operated by street railway companies and by subsidiaries of railroad corporations.

TELEPHONES

Reductions in several items of the New England Telephone and Telegraph Company rate schedule have been effected during the year. There were changes in base rate areas which relieved many subscribers from payment of any mileage charge and reduced the rate to many others. Constant surveys are being made with a view to further extensions of base rate areas. These changes definitely result in the development of rural telephone service.

In the month of February certain reductions in toll rates were made which benefited Massachusetts subscribers to the extent of about \$250,000.00 and further adjustment of toll rates is planned for January 1, 1930. Some modifications of service connection charges have also been made.

The Director of the Telephone Division informs us that there has been some let-down during the past year in the maintenance and the service of the New England Telephone and Telegraph Company. Steps have been taken to remedy this situation.

Several of the local telephone companies have had the attention of the inspectors of the Telephone Division and the Director has had meetings in several communities which have resulted in improved conditions.

GAS, ELECTRIC AND WATER COMPANIES

The electric companies again have had a prosperous year and improvement has been made in their financial and physical conditions. Dividends have been earned and paid and provisions made for depreciation and surplus. The tendency toward voluntary reductions in rates charged for electricity has continued during 1929. Various petitions for reductions in prices charged by gas and electric companies have been received and most of them, after hearing and consideration, have been decided and reductions ordered. Several rate cases are still pending.

The gas companies have continued their efforts to increase the use of gas in industrial plants, and for heating and refrigeration. There has been a large increase in the production and use of gas for house heating in Massachusetts. Sales of gas for use in industrial plants and for commercial purposes have also increased materially. As was pointed out last year, the gas companies have met and are meeting with increased competition in the more extensive manufacture and sale by electric companies of household appliances for cooking and similar services.

MUNICIPAL GAS AND ELECTRIC PLANTS

We herewith set forth a list of the municipal gas and electric plants which, from reports filed in 1929 for the year 1928 appear to have violated the provisions of the Statute requiring them to reduce their rates, when the plants have earned a profit in excess of the eight per cent allowed by law.

Percentage of Profit Earned

Belmont	16.01%	Merrimac	13.14%
Blandford	8.07%	Middleton	18.84%
Braintree	9.98%	North Attleboro	8.23%
Concord	8.96%	Peabody	8.87%
Groveland	11.09%	South Hadley	9.89%
Hingham	8.60%	Templeton	11.07%
Littleton	12.96%	Wellesley	10.01%
Marblehead	10.68%		

We also submit a list of gas, electric and water companies that have violated the law by failing to file their annual returns within the limit prescribed by law.

Municipal Lighting Plants

Dana

Gas and Electric Companies

Lowell Gas Light Company
North Attleboro Gas Light Company
Ware Gas Company

Water Companies

Auburn Water Company Lenox Water Company

SALE OF SECURITIES

In 1929, a total of 5,194 salesmen and 891 brokers were registered. Fees for such registrations received and paid to the Treasurer of the Commonwealth amounted to \$54,938. 154 new applications for registrations as brokers were allowed and 28 such applications were denied; including members of firms, the total number denied was 139. 1,867 applications for new registrations as salesmen were allowed and 87 such applications were denied. The sale in this Commonwealth during the year 1929 of securities of corporations, trusts, associations or other bodies, having an aggregate par value of \$81,814,410, has been forbidden by the Commission. Since the effective date of the Act (August 26, 1921) up to November 30, 1929, the proposed sale of securities of corporations, trusts, associations or other bodies, having an aggregate par value of \$2,126,805,044, has been prohibited. In 1929, 35 formal hearings were held on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. The registrations of 9 brokers and 160 salesmen were cancelled on the registers by orders of the Commission. The registrations of 5 brokers and 56 salesmen were cancelled in accordance with their requests. In connection with the registrations of brokers and salesmen under the provisions of Chapter 487 of the Acts of 1924, 2,136 investigations were made.

We believe that the provisions of the Sale of Securities Act as amended are proving more effective as time goes by in the prevention of fraudulent sales of securities, sales of fraudulent securities and fraudulent practices by brokers and salesmen in the conduct of their business. We have suggested an amendment to the Sale of Securities Act to which reference is hereinafter made under the heading "Legislation Recommended."

CAPITAL STOCK AND BONDS

Forty-eight applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1929. The par value of the securities asked for was \$15,687,345, and the par value of the amount approved was \$14,453,220.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

Company	CAPITAL STOCK APPROVED			Bonds approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
The Agawam Electric Company . . .	\$25,000 00	\$100 00	\$25,000 00	-	Dec. 21
Amherst Gas Company . . .	75,000 00	100 00	75,000 00	-	Dec. 21
Athol Gas and Electric Company . .	275,000 00	120 00	330,000 00	-	Mar. 29
Attleboro Gas Light Company Corporation . . .	29,000 00	150 00	43,500 00	-	Mar. 22
Barnstable Water Company ¹ . . .	40,000 00	90 50	36,200 00	\$30,000 00	Feb. 15
Blackstone Electric Light Company . .	25,000 00	100 00	25,000 00	-	July 12
Buzzard's Bay Gas Company . . .	1,250 00	25 00	1,250 00	-	Mar. 29
Buzzard's Bay Gas Company . . .	48,750 00	25 00	48,750 00	-	Nov. 1
Cape Cod Gas Company . . .	1,250 00	25 00	1,250 00	-	Mar. 29
Central Massachusetts Electric Company . . .	145,000 00	115 00	166,750 00	-	Dec. 28
Charlestown Gas and Electric Company . . .	150,000 00	75 00	450,000 00	-	Jan. 18
Chatham Water Company ² . . .	150,000 00	100 00	150,000 00	-	June 28
Citizen's Gas, Electric & Power Company . . .	100,000 00	100 00	100,000 00	-	May 27
The Edison Electric Illuminating Co. of Boston . . .	100,000 00	411 50 ³	411,500 00	-	July 29
Gardner Electric Light Company . . .	110,000 00	133 33	146,663 00	-	Dec. 23
Greenfield Electric Light & Power Company ¹ . . .	75,000 00	25 00	75,000 00	-	Mar. 15
Hoosac Valley Street Railway Company ⁴ . . .	-	-	-	400,000 00	Nov. 1
Ipswich Gas Light Company ⁵ . . .	12,000 00	25 00	12,000 00	-	Dec. 7
Ludlow Electric Light Company . . .	30,000 00	120 00	36,000 00	-	Dec. 28
Lynn Gas and Electric Company . . .	585,000 00	75 00	1,755,000 00	-	May 10
Marlborough Electric Company . . .	235,000 00	140 00	329,000 00	-	Jan. 18
Montaup Electric Company . . .	1,500,000 00	100 00	1,500,000 00	3,000,000 00 ⁶	Mar. 15
Monument Beach Water Company ⁷ . .	26,000 00	100 00	26,000 00	-	Mar. 22
New England Power Company . . .	3,125,000 00	30 00	3,750,000 00	-	June 6
North Adams Gas Light Company . . .	200,000 00	165 00	330,000 00	-	July 31
North Shore Gas Company . . .	42,000 00	25 00	42,000 00	-	Dec. 7
North Shore Gas Company . . .	80,000 00	25 00	80,000 00	-	May 17
Norton Power & Electric Company . .	15,000 00	100 00	15,000 00	-	July 12
Old Colony Gas Company . . .	140,000 00	25 00	140,000 00	-	Mar. 15
Old Colony Railroad Company . . .	964,500 00	Auction	—not less than	par	July 31
Pittsfield Electric Company ¹ . . .	40,000 00	25 00	40,000 00	-	Feb. 21
Plymouth Gas Light Company ⁸ . . .	60,000 00	100 00	60,000 00	-	July 30
Provincetown Light and Power Company ¹ . . .	40,000 00	100 00	40,000 00	110,000 00	July 29
Quincy Electric Light & Power Company . . .	245,850 00	60 00	590,040 00	-	Dec. 28
Seekonk Electric Company . . .	246,300 00	25 00	246,300 00	-	Dec. 21
Spencer Gas Company . . .	70,800 00	120 00	84,960 00	-	June 13
Springfield Gas Light Company . . .	824,625 00	45 00	1,484,325 00	-	Mar. 7
Webster and Southbridge Gas and Electric Co. . .	150,000 00	40 00	240,000 00	-	Jan. 18
Westboro Gas and Electric Company . .	117,000 00	120 00	140,400 00	-	May 10
West Boston Gas Company . . .	200,000 00	25 00	200,000 00	-	May 17
Western New England Telephone Company . . .	108,570 00	30 00	108,570 00	-	July 12
Weymouth Light and Power Company . . .	138,625 00	30 00	166,350 00	-	Dec. 28
Weymouth Light and Power Company . . .	65,000 00	30 00	78,000 00	-	Sept. 20
Williamstown Gas Company . . .	87,500 00	200 00	175,000 00	-	Jan. 11
Worcester Consolidated Street Railway Company . . .	36,700 00	100 00	36,700 00	-	Dec. 21
Worcester Consolidated Street Railway Company . . .	20,000 00	100 00	20,000 00	-	Dec. 21
Worcester Suburban Electric Company . . .	125,000 00	50 00	250,000 00	-	Mar. 15
Worcester Suburban Electric Company . . .	32,500 00	50 00	65,000 00	-	Sept. 13

¹ Preferred Stock.² \$75,000 Common stock; \$75,000 Preferred stock; cancels order of June 25, 1927.³ Sold at auction.⁴ Bonds matured and extended.⁵ Now North Shore Gas Company.⁶ Notes.⁷ \$13,000 Common stock; \$13,000 Preferred stock.⁸ \$30,000 Common stock; \$30,000 Preferred stock.

LEGISLATION RECOMMENDED

Under the provisions of section 3, subdivision (g) of the Sale of Securities Act, the securities of a corporation duly licensed to make small loans are exempt from the provisions of the act. Loans of \$300 or less of corporations duly licensed to make small loans in this State are under the supervision and control of the Supervisor of Loan Agencies within the Department of Banking and Insurance. Loans or securities in excess of \$300 are not under the supervision and control of the Supervisor. As a consequence, securities issued by such corporations, of the face value of more than \$300, are exempt from the provisions of the chapter. We know of no reason why this should be so, and the securities of such companies, in our judgment, when they are not under the control of the Supervisor of Loan Agencies, should be under like control as that pertaining to the securities of corporations generally. This will cause no conflict between this department and the Bureau of Loan Agencies, as subdivision (b) of section 3 exempts "commercial paper, notes or evidences of indebtedness maturing less than fourteen months from the date of issuance thereof."

Accordingly, we recommend that subdivision (g) of section 3 of the Sale of Securities Act be amended by striking out in the fourth line thereof the following words: "corporation duly licensed to make small loans."

We submit herewith an accompanying bill, marked "A," to carry the recommendation into effect.

Section 163 of chapter 160 of the General Laws specifies certain equipment and tools which railroads must carry upon their trains, with the proviso that the Department may require trains or cars to be equipped with other tools in substitution for or in addition to those prescribed.

The first statute requiring tools to be carried was passed in 1870, and has been added to since that time. The provision that the Department might require trains or cars to be equipped with other tools in substitution for or in addition to those prescribed by the statute was passed in 1917, for the purpose, as we understand, of meeting the changed conditions brought about by the different character of the cars. It is to be noted that this proviso does not permit the Department to relieve the railroads of carrying any of the tools specified in the statute unless some other tools are substituted in their place. Some of the tools and equipment now required have become obsolete because of the present-day conditions in the operation of railroads. We think it desirable that the Department should be given a broader authority in the determination of what tools and equipment shall be carried. To carry out our views, we are submitting a bill, herewith attached, marked "B."

By the passage of chapter 379 of the Acts of 1929, providing for a method by which municipalities may enter into the business of supplying their inhabitants with gas and electricity, the Commonwealth took a very definite and important step toward insuring reasonable rates for gas and electricity within the Commonwealth. The act, as it originally passed the House of Representatives was, in our opinion, more in the interests of the people of the Commonwealth than that finally enacted into law. Two changes were made after the act passed the House which, it seems to us, were not in the interests of the public welfare. One provided that in the fixing of a price that was fair that a municipality should offer the company for its property located within the territorial limits of the municipality, the Department should have regard for all elements which might enter into a determination of the fair value of the property so purchased, except that there should be no enhancement on account of future earning capacity or goodwill, or exclusive privileges derived from the rights in the public ways. The second provided that the municipality should make an offer for all the property within the limits of the municipality suitable for and used in connection with the generation and distribution of gas or electricity within such limits where one company owns both the gas and electric plants. The first change may have the effect of requiring the municipality to offer to pay much more than the plant is really worth to the municipality. The second will, in certain situa-

tions, prevent the municipality from entering into the business. In situations where there is a large plant in a municipality which is used to generate electricity not only for the municipality desiring to enter into the business but many others as well, the act will force the municipality to take over a plant which is greater in capacity than it may need and at an expense which will be prohibitive to the municipality. Moreover, it will require the town to take over property which it does not desire and which it may have no use for, as it may require the taking over of lines and pipes used solely to transmit gas or electricity to another municipality, and in addition will require it to go into the gas business when it only desires to go into the electric business, or vice versa. We make no specific recommendations in relation to a change in the bill and present no amendments, for the reason that we think that it would be somewhat inappropriate, pending the report of the commission established under chapter 55 of the Resolves of this year. Moreover, we understand a bill has already been introduced into the House of Representatives to restore the bill as it passed the House.

Since the printing, for the year 1922, of the orders of this Department and abstracts of the returns to it of the various companies under its supervision, the Commission on Administration and Finance have declined to authorize their printing, except that they have authorized the printing of the abstracts of the returns of gas, electric and water companies and municipal plants for the year 1928. We think that the abstracts of the returns of other companies under the jurisdiction of this Department should also be printed, and such of the orders of this Department as, in the judgment of the Department, ought, in the public interest, to be printed. The printing of these orders and abstracts will eliminate confusion in the office of the Department, as now the only source of information is its files, and the space of the Department being limited, great confusion is caused by representatives of the public seeking information from the original files. Moreover, we believe that the important orders of this Department establishing rules of conduct under given facts as to brokers and salesmen and the sale of securities, under the provisions of the Sale of Securities Act, should be readily available to brokers and salesmen and organizers of companies, in order that they may know the attitude and policy of the Department, so that they may avoid taking action and doing those things which the Department has in its orders condemned.

The whole expense of printing the abstracts of the returns of the gas, electric and water companies and municipal plants is borne by them through an assessment levied upon them to pay for the cost of the administration of the Department so far as it relates to them. The Sale of Securities Act returns an annual profit to the Commonwealth of over \$25,000. Thus, the major portion of the expense of printing the orders and the abstracts of the companies would be sustained by the gas and electric companies and through receipts from the Sale of Securities Act, and we believe that the small burden placed upon the Commonwealth in publishing that part of the orders and abstracts of returns which relate to companies other than gas, electric and water companies and municipal plants is not such as to offset the very manifest advantages to the public of having the orders and the abstracts of returns printed and readily available. This is a matter which we understand is entirely within the discretion of the Commission on Administration and Finance, and needs no legislation, but only favorable action upon their part. In many years the Legislature has made provision for the printing of these documents, but notwithstanding, they have not been printed. We do not submit a bill to carry out this recommendation at this time, as we hope that if the Legislature indicates to the Commission on Administration and Finance the desirability of renewing the printing of these documents by making an appropriation therefor, they will be printed, notwithstanding the failure of the Commission to print all of the material for the year 1928, although provision was made therefor in the Department's appropriation.

AN ACT RELATIVE TO THE EXEMPTION OF CERTAIN SECURITIES UNDER THE
SALE OF SECURITIES ACT

Chapter one hundred and ten A of the General Laws is hereby amended by striking out in the fifth and sixth lines of subdivision (g) of section three of the Sale of Securities Act the words "corporation duly licensed to make small loans" and by adding at the ending thereof the words "other than corporations licensed to make small loans," so that said subdivision (g) of section three of said act shall read as follows: (g) Securities issued by, and representing an interest in, or direct contract right against, any national bank or corporation created or existing by virtue of the acts of the congress of the United States; or by any state bank, trust company, co-operative bank, or credit union of this commonwealth, or of any other state where the same is fully organized, doing business and is under the supervision of the public official controlling banking in such state; or the securities of any corporation under the supervision of the department of banking and insurance of this commonwealth, other than corporations licensed to make small loans.

"B"

AN ACT RELATIVE TO TOOLS TO BE CARRIED ON RAILROAD TRAINS

Section 163 of chapter 160 of the general laws is hereby amended by striking out in the eleventh, twelfth and thirteenth lines the words "provided, that the department may require trains or cars to be equipped with other tools in substitution for, or in addition to, those above prescribed" and inserting in place thereof the following:—"provided, that the department may by order modify or change the requirements of this section by specifying in such order the tools or equipment to be furnished or carried and the conditions under which such tools or equipment shall be carried," so that said section as amended shall read as follows: SECTION 163. Every railroad corporation shall equip each of its trains, for use in case of accident, with two car replacers, two jack screws, two crowbars, one pinch bar, one claw bar, one spike hammer, two sharp axes, and ropes or chains suitable for hauling cars; and shall also equip each car of every passenger train owned or regularly used by it, including mail and baggage cars, with two sets of tools, consisting of an axe, a sledge hammer, a crowbar, handsaw and pail, to be maintained in good condition, and one set of which shall be kept upon the inside and the other upon the outside of every such car. in a convenient place and in a manner approved by the department; but one set shall be sufficient if so placed as to be accessible both from the inside and outside of such car; provided, that the department may by order modify or change the requirements of this section by specifying in such order the tools or equipment to be furnished or carried and the conditions under which such tools or equipment shall be carried. A corporation which violates this section shall forfeit five hundred dollars.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
LEWIS GOLDBERG,
Commissioners.







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The Commonwealth of Massachusetts

Annual Report

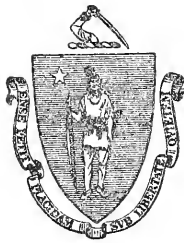
OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1930

COMMISSIONERS' REPORT



DEPARTMENT OF PUBLIC UTILITIES

State House, Boston, January 21, 1931.

ANNUAL REPORT

To the Honorable Senate and House of Representatives in General Court assembled:

We respectfully submit the eleventh annual report of the Department of Public Utilities for the fiscal year ended November 30, 1930.

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department is as follows:

Steam railroad companies	26
Street railway companies	37
Telephone companies	17
Telegraph companies	5
Steamboat companies	3
Sleeping car companies	1
Express companies	14
Gas companies	53
Electric companies	56
Water companies	52
Motor bus lines	70
Municipal lighting plants	43
Manufacturing and other companies doing an electric business ...	5
Voluntary associations	30
Total	412

During the year the Department held 430 formal hearings and many informal hearings or conferences. The following tabulation, showing the number of petitions and complaints filed and the number of investigations made, indicates the volume of work requiring the Department's attention during the fiscal year:

Petitions: Railroad, 96; street railway, 47; telephone and telegraph, 3; gas, 34; electric, 70; water, 16; sale of securities, 9; motor bus lines, 105; total, 380.

Special Investigations: Railroad, 2; street railway, 1; telephone and telegraph, none; gas and electric, 3; sale of securities, 1; smoke abatement, 5; motor bus lines, 1; total, 13.

Applications for Special Permits: Railroad, 76; street railway, 5; motor bus lines, 3; gas and electric, 4; water, 1; total, 89.

Complaints: Railroad, 225; street railway, 62; motor bus lines, 147; telephone and telegraph, 930; gas, 60; electric, 143; water, 10; sale of securities, 1,264; smoke abatement, 146; total, 2,987.

Tariff or Schedule Filings: Railroads, freight service, 940; passenger service, 268; street railways, 14; express, 42; telephone, 11; motor bus lines, 11; electric, 200; gas, 117; water, 19; total, 1,622.

RAILROADS

The railroads operating in the Commonwealth have, during the last year, felt the effects of the depression in business. Notwithstanding the adverse conditions, however, The New York, New Haven and Hartford Railroad Company has met its dividend requirements of 6 per cent on its common stock, and the Boston and Maine Railroad will earn its present dividend rate of 4 per cent on its common stock.

The service on the railroads has, during the last year, been substantially maintained, and steps are now being taken for co-operative operation between the New York, New Haven and Hartford Railroad and the Boston and Maine Railroad, by which it is proposed, where it can be done without impairment of the service, to consolidate terminal facilities and the through operation of engines and trains. It is expected by the railroads that this co-operative arrangement will result in economies and in the improvement of the freight service.

The committee appointed by the New England governors to investigate the railroad situation, in so far as it affects New England, has not yet made their report.

GRADE CROSSING ABOLITION

Under the provisions of chapter 417 of the Acts of 1930, expediting and regulating the abolition of grade crossings, a new procedure has been initiated and developed which constitutes a very forward step towards an efficient and economical method of abolishing grade crossings in the Commonwealth. Pursuant to the requirements of this statute the Department of Public Works, on October 1, filed with this Department a list of thirty-two grade crossings located at various points in the state, the abolition of which it suggested for early consideration. Our duty under the new law is to determine the order of priority in which the elimination of the grade crossings included in the list shall be undertaken. Public hearings have been held on this matter and views taken of a number of the crossings. A determination of the order of priority will be made by the Department at an early date.

The following table shows the number of persons killed and injured at railroad grade crossings during the past year:

Accidents at Grade Crossings during the Year ended November 30, 1930

RAILROADS	PROTECTED CROSSINGS				UNPROTECTED CROSSINGS			
	Num- ber	Killed	In- jured	Ratio of Acci- dents	Num- ber	Killed	In- jured	Ratio of Acci- dents
Boston & Albany	64	2	2	1-32	122	-	-	-
Boston & Maine	461	8	2	1-46	220	2	6	1-27
Boston, Revere Beach & Lynn	11	-	-	-	-	-	-	-
Hoosac Tunnel & Wilmington	-	-	-	-	2	-	-	-
Central Vermont	6	-	-	-	40	-	1	1-40
New York, New Haven & Hartford	425	7	7	1-30	290	2	15	1-17
Fore River	3	-	-	-	-	-	-	-
Total	970	17	9	1-37	674	4	22	1-26

STREET RAILWAYS

The serious conditions with which our street railways have been confronted for a number of years have been aggravated by the general business depression of the past year, especially in the industrial centers of the state. Two of our larger systems are being operated under receiverships. Notwithstanding the establishment in past years of generally higher rates of fare, the effecting of economies of operation in an effort more evenly to balance income and expenses, the abandonment of unprofitable trolley lines and the establishment and extension of numerous bus routes, street railways have been unable to increase net earnings from a steadily decreasing patronage. It is difficult to predict whether the use of facilities afforded by street railways will increase sufficiently, with the return of normal commercial and industrial conditions, to offset the loss of patronage due to the steadily increasing use of the automobile for private transportation.

CHARLES STREET STATION

Under chapter 444 of the Acts of 1924, provision was made for the construction and use of an additional station in connection with the Cambridge subway at or near the junction of Cambridge and Charles streets in the city of Boston.

In the course of the preparation of plans and specifications the Department was of the opinion that provision for the accommodation of longer trains should be made at the time of the construction of the station and if that were done a larger appropriation than that authorized by the act would be required to build the station. A bill was introduced in the legislature to accomplish this result but it failed of passage. In the meantime no further action had been taken with respect to the construction of the station. Recently, however, the City of Boston has acquired land and is laying out a traffic circle at this point and it is now pos-

sible to construct a station at a cost much less than that contemplated in the act. A general plan of the station has been completed, public hearings have been held and a contract has been executed with the Boston Elevated Railway Company for the use of the station when constructed.

MOTOR BUS TRANSPORTATION

There are 97 motor bus lines operating in various parts of the state under certificates of public convenience and necessity granted by the Department, including those operated by street railway companies and by subsidiaries of railroad corporations, an increase of 5 over those operated during the preceding year. The total number of certificates granted during the past year was 151. These were issued to 28 different companies and covered mainly additions to or extensions of existing routes of present licensees.

The earnings of the bus lines have also been seriously affected by a loss of patronage due to the use of automobiles and to the general industrial depression.

Chapter 38, Resolves of 1930, directed the Department to prepare and submit to the General Court on or before December 15, 1930, a revision and codification of the laws affecting motor vehicles carrying passengers for hire, not including taxi cabs, and in connection therewith to consider the expediency of additional legislation relating thereto. A public hearing was held on this matter and a report thereon has been submitted to the legislature in accordance with the provisions of the resolve (Printed as House No. 201).

TELEPHONES

Many modifications of rates and charges have been made during the year, representing reductions to telephone subscribers in Massachusetts of approximately \$410,000 a year. Extensions of base rate areas have been made in 35 cities and towns in the state, which will afford relief to a large number of subscribers.

During the past year dial service has been installed in Worcester and Spencer, and present plans provide for a change to dial service in Pittsfield, Rockport, Millbury, Williamsburg and Cotuit in 1931. With the completion of the new telephone building at Bowdoin Square, Boston, the Haymarket and Richmond exchanges will be changed over to dial service.

GAS, ELECTRIC AND WATER COMPANIES

Notwithstanding a substantial loss in the sale to large users of electricity for power and other purposes during the past year, as a result of the current business depression, the loss thus sustained has been largely offset by an increase in the use of electricity for general household purposes. The electric companies, therefore, have had a prosperous year and have been able to make substantial improvements and additions to their properties.

In many cases reductions of rates have been made by companies either voluntarily or through action of the Department.

The gas companies, while not as prosperous as the electric companies, have been able to increase the types of use of gas. Some companies, like the Worcester Gas Light Company and the Boston Consolidated Gas Company, by the use of high pressure systems, have been able to supply territory hitherto without gas, through long distance extensions.

During the past year, 99,365 gas meters have been inspected and 529 examinations made of gas quality and the income received from fees amounted to \$25,604.50. Some electric meters were also tested.

Under the order of the General Court directing the Department to ascertain what service or other charges were made by gas and electric companies, a report on the subject matter of the order was submitted on May 22, 1930.

The Western Massachusetts Electric Company and Thorndike Company (a water company) violated the law requiring the filing of an annual return with the Department within the time prescribed by law.

MUNICIPAL LIGHTING PLANTS

We set forth a list of the municipal gas and electric plants which, from reports filed in 1930 for the year 1929, appear to have violated the provisions of the statute

requiring them to reduce their rates, when the plants have earned a profit in excess of the eight per cent allowed by law.

Belmont	14.96%	North Attleborough	10.37%
Concord	8.07%	Peabody	19.79%
Groveland	8.03%	Shrewsbury	9.29%
Hudson	8.68%	South Hadley	8.02%
Merrimac	17.13%	Wellesley	10.05%

The Southwick municipal lighting plant also violated the law by failing to file its annual return within the limit prescribed by law.

SECURITIES DIVISION

Mr. John C. Hull, of Leominster, was appointed Director of the Securities Division established by chapter 287, Acts of 1929, and assumed the duties of his office on May 8, 1930. Pursuant to the provisions of this chapter the Commission, on May 9, 1930, adopted an order determining what functions imposed upon the Commission in relation to the administration and enforcement of the Sale of Securities act should thereafter be performed by the Securities Division.

In 1930, a total of 5,481 salesmen and 899 brokers were registered. Fees for such registrations received and paid to the treasurer of the commonwealth amounted to \$55,912. A total of 167 new applications for registration as brokers were allowed and 23 such applications were denied. Including members of firms, the total number denied was 109. A total of 1,695 applications for new registration as salesmen were allowed and 52 such applications were denied. The sale in this commonwealth, during the year 1930, of securities of corporations, trusts, associations or other bodies, having an aggregate par value of \$150,413,600, has been forbidden by the Commission or by the Securities Division. Since the effective date of the Sale of Securities act (August 26, 1921) up to November 30, 1930, the proposed sale of securities of corporations, trusts, associations or other bodies, having an aggregate par value of \$2,277,218,644, has been prohibited. Thirty-five formal hearings were held by the Commission or by the Director of the division during the past year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. The registration of 12 brokers and 279 salesmen was cancelled on the register by orders of the Commission or of the Director. The registration of 6 brokers and 100 salesmen was cancelled pursuant to their request. In connection with the registration of brokers and salesmen under the act, 1,938 investigations were made.

Chapter 56, Resolves of 1930, provided for a survey and study by the Department of the laws relative to the promotion and sale of securities. A public hearing was held and the findings and recommendations of the Department with relation to the subject matter of the resolve, together with a draft of legislation to carry its recommendations into effect (See Appendix B), are included in this annual report.

SMOKE INSPECTION

Mr. David A. Chapman, of Brookline, was appointed Director of the Division of Smoke Inspection established by chapter 380, Acts of 1930, and assumed the duties of his office on September 1, 1930. Pursuant to the provisions of this chapter the Commission adopted an order determining what functions imposed upon the Commission relative to the administration and enforcement of the act providing for the abatement of smoke in the district defined by chapter 651, Acts of 1910, as amended by chapter 301, Acts of 1928, should thereafter be performed by the Division of Smoke Inspection.

The following summary shows the work done by this Division for the year ending November 30, 1930:

<i>Recorded observations:</i>	<i>1930</i>
Stationary stacks	115,878
Locomotive stacks	41,327
Marine stacks	2,924
Total	160,129

Observations recorded showing the emission of smoke in excess of the amount allowed by the act:	1930
Stationary stacks	917
Locomotive stacks	34
Marine stacks	64
Total	1,015
Percentage of observations in which emissions of smoke in excess of the amount allowed by the act were found:	
Stationary stacks	0.79
Locomotive stacks	0.08
Marine stacks	2.19
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the carelessness of those immediately responsible for their operation	436
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to overloading the plant	15
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the fuel situation	—
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, burning fuel oil	325
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, burning powdered coal	2
Total	778
<i>Stationary stacks upon which recorded observations have been made may be classified as follows:</i>	
Public Service	177
Manufacturing plants	1,221
Office buildings	1,249
Residences	14
Total	2,661
Stationary stacks upon which recorded observations showed smoke emitted in excess of the amount allowed by the act may be classified as follows:	
Public Service	33
Manufacturing plants	244
Office buildings	218
Residences	—
Total	495
Number of stacks found after first notice or visit of an inspector to have ceased emitting smoke in excess of the amount allowed by the act	241
Additional number of stacks so found after further notice or visits	180
Number of stacks from which the emission of smoke contrary to the requirements of the act has been observed and had not ceased at the close of the year:	
Public Service	—
Manufacturing plants	1
Office buildings	—
Total	1

CAPITAL STOCK AND BONDS

Thirty-four applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1930. The par value of the securities approved was \$15,464,375.

The following table shows the securities approved by the Department for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

Company	CAPITAL STOCK APPROVED			Bonds approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Abington & Rockland, The Electric Light & Power Company of	\$236,250	\$25. 00	\$236,250	-	Nov. 21
Adams Gas Light Company	160,000	165. 00	264,000	-	Jan. 10
Agawam Electric Company, The	20,000	100. 00	20,000	-	Mar. 25
Amherst Gas Company	75,000	100. 00	75,000	-	Feb. 14
Amherst Water Company	-	-	-	\$50,000	May 29
Amherst Water Company ¹	100,000	100. 00	100,000	-	Nov. 26
Attleboro Gas Light Company	29,000	150. 00	43,500	-	Apr. 11
Barnstable Water Company	35,000	100. 00	35,000	-	July 25
Boston Elevated Railway	-	-	-	1,200,000	May 14
Boston, Revere Beach & Lynn Railroad Company	265,200	100. 00	265,200	-	Dec. 13
Boston Terminal Company	-	-	-	1,500,000	July 2
Citizens' Gas, Electric & Power Company	150,000	100. 00	150,000	-	June 12
Cottage City Water Company	-	-	-	90,000	May 28
Deerfield River Electric	50,000	25. 00	50,000	-	April 7
Gardner Electric Light Company	250,000	133. 33	333,325	-	Oct. 17
Greenfield Electric Light & Power Company	480,000	125. 00	600,000	-	Feb. 28
Holliston Water Company	-	-	-	50,000	June 25
Lee Electric Company	60,000	150. 00	90,000	-	April 18
Ludlow Electric Light Company	16,000	125. 00	20,000	-	Mar. 24
Marion Gas Company	1,250	25. 00	1,250	-	July 30
Milford Gas Light Company	92,600	100. 00	92,600	-	June 26
North Attleboro Gas Company	1,000	100. 00	1,000	-	Jan. 31
North Attleboro Gas Company ²	136,200	100. 00	136,200	-	Mar. 14
New England Power Company	1,333,325	30. 00	1,599,900	-	June 27
Old Colony Gas Company	200,000	25. 00	200,000	-	Feb. 28
Old Colony Railroad	-	-	-	1,250,000	July 11
Quincy Electric Light Company	116,050	70. 00	324,940	-	July 31
United Electric Light Company	537,500	70. 00	1,505,000	-	May 8
Turners Falls Power & Electric Company	1,000,000	150. 00	1,500,000	-	Mar. 12
Western Counties Electric Company ³	120,000	50. 00	120,000	-	Mar. 21
Western Counties Electric Company ⁴	75,000	50. 00	75,000	-	July 2
Western Counties Electric Company ⁵	480,000	50. 00	480,000	-	Feb. 21
Worcester Consolidated Street Railway Company ⁶	-	-	-	500,000	July 25
Worcester Consolidated Street Railway Company ⁶	-	-	-	4,805,000	July 25
	\$6,019,375	-	\$8,318,255	\$9,445,000	-

¹ Preferred Stock.

² Issued to purchase North Attleboro Gas Light Company.

³ To purchase electric department of the Easthampton Gas Company.

⁴ To purchase the Hampshire Electric Company.

⁵ To purchase electric department of the Amherst Gas Company.

⁶ Bonds matured and extended.

LEGISLATION RECOMMENDED

At the suggestion of the Director of the Division of Smoke Inspection, we recommend three amendments to chapter 651 of the Acts of 1910, as amended. The purpose of these amendments is, first, to place an additional restraint on the emission of smoke from stacks defined under said act as falling under Class II. The present act authorizes a greater emission of dense smoke by stacks falling under Class II than from those falling under either Class I or Class III, as defined by the act. We know of no sound reason why this should be so. The second amendment makes provision to give the department a greater latitude in the service of an order made by it under the provisions of the act. At present it is provided that the service must be made within twenty-four hours of the order. It occurs at times that the provision is difficult to comply with, if not impossible. Consequently, it is suggested that the provision for service within twenty-four hours be eliminated, and a provision that the service shall be made as soon as practicable be inserted in place thereof. The third amendment is to make the emission of

smoke a criminal offense after service of the order instead of after the order, as at present. We herewith submit a bill to carry out the recommendation. (See Appendix A.)

Except for recommendations for legislation which the department makes in response to chapter 38 of the Resolves of 1930, providing that the department shall prepare and submit to the general court a revision and modification of the laws affecting motor vehicles carrying passengers for hire, and to chapter 56 of the Resolves of 1930, providing for a survey and study by the department of the laws of the Commonwealth relating to the promotion and sale of securities, the department makes no recommendations for legislation during the current year. However, under this subject we think we ought to state that we are still of the opinion that chapter 379 of the Acts of 1929, entitled "An Act concerning Municipal Lighting Plants and the Powers of the Department of Public Utilities relating Thereto," does not meet with the entire approval of the department. We feel it would have been much better if the act as it originally passed the House had been enacted into law. In its present form doubtful questions of law may arise, and in some situations it will be found unworkable. We have, however, felt it impolitic this year to suggest amendments to meet our views, as the subject has been considered by the Legislature for two successive years, and our views have not met with full approval. We are also influenced in our attitude by the feeling that, with the slight chance of approval of our views, it is unwise to press them in this time of financial depression. Time, we think, will vindicate our views in relation to this act, and we believe that the objectionable provisions thereof will then be corrected. Accordingly, we submit no bill to amend said chapter 379.

SALE OF SECURITIES ACT

The Legislature, in 1930, by Chapter 56 of the Resolves of that year, called upon the Department to make a survey and study of the laws of the Commonwealth relating to the promotion and sale of securities, with a view to the revision, codification and simplification of those laws and the making of other improvements therein. The language of the Resolve is as follows:

"Resolved, That the department of public utilities make a survey and study of the laws of the commonwealth regulating or otherwise pertaining to the promotion and sale of securities with a view to the revision, codification and simplification of said laws and the making of any other improvements therein that may seem advisable. The department shall hold hearings, may call upon the attorney general and all other departments, commissions and officers of the commonwealth for such information as may be helpful in the course of its study and survey and may, for the purpose of ascertaining to what extent, if any, the provisions of said laws do not sufficiently regulate the promotion and sale of securities, require, by summons, the attendance and testimony of witnesses and the production of books and papers relating to any matter within the scope of this resolve, and may administer oaths to witnesses testifying before it. The department may expend, with the approval of the governor and council, for the purposes of this resolve such sums, not exceeding, in the aggregate, five thousand dollars, as may hereafter be appropriated. It shall include in its annual report to the general court its findings and recommendations with relation to the subject matter of this resolve, together with drafts of legislation necessary to carry its recommendation into effect."

The Department held, on July 15, 1930, a public hearing upon the subject matter of this Resolve; and has made a survey and study of the laws and of their practical working in administration. The results of this survey and study are reported in a draft of legislation entitled, "An Act in Amendment and Revision of the Sale of Securities Act," which draft is annexed hereto. (See Appendix B.)

Pursuant to the authority of the resolve, the Department deemed it best to procure special assistance; and employed Melville F. Weston, Esq., of Boston, who has assisted the Department in the somewhat extensive labors required of it in this connection.

A review of the experience of the Department over the nearly ten years in which the Sale of Securities Act has been in force, showed the present law to be far from satisfactory in form and expression. Bearing in mind the instructions of the resolve, the Act has been subjected to thorough and even minute textual study and the revision presented herewith is for the most part a rearrangement, simplification and clarification to the end that redundant language may be omitted and the provisions of law set forth in a more simple and logical order, with the elimination of such inconsistencies and ambiguities as experience has disclosed.

The changes in form, order and expression, which make no substantial change in the law, are numerous and we think it unnecessary to refer to them in detail. There may also be some slight changes in substance, of a perfecting nature, to which no especial attention need be directed. We call to your attention the following changes, additions and eliminations, which seem to us important. These fall under nine heads.

1. *Par value.* The definition of "par value" found in section 2 (h) of the present law has been omitted. This term was used elsewhere in the act only in that portion of section 3 (d) which was eliminated by Statute 1930, Ch. 316 relating to securities issued by certain holding corporations; and had no remaining significance except possibly in connection with the exemption under section 3 (i). As to the latter provision, it was felt best to confine the exemption of securities of Massachusetts corporations having a capital stock (plus other outstanding securities) of not over twenty-five thousand dollars, to the simple and unequivocal case of corporations having only par value stock. This is accomplished in section 4 (h) of the draft and there is therefore no further occasion for a definition of "par value."

2. *Exemptions.* In the present law exempt securities and sales are grouped together in confusion in section 3. In the draft they are separated and exemptions of types of sales are dealt with in section 3 while exemptions of types of securities are covered by section 4. The most significant change consists of rendering absolute the exemption of isolated sales and judicial sales; which, it is felt, cannot be subjected to the numerous restraints of the act without undue interference with elemental rights of property and the judicial process. All other exemptions of sales and all exemptions of securities are qualified by the right of the commission, for cause, to forbid sale notwithstanding the exemption.

Under section 3 (e) of the present law the commission is empowered to add to the exemption "sales or securities listed upon" any organized stock exchange. The commission has never added to the list of stock exchanges, feeling it unwise to delegate, in effect, to stock exchanges organized in other states, the power to determine what should be exempt securities. In section 4 (d) of the draft the commission is empowered to approve additional exchanges in Massachusetts only. Section 4 (i) of the draft, corresponding to section 3 (p) of the present Statute is deemed to confer sufficient power with respect to adding to the exemptions "other securities and classes of securities."

The change in the exemption in section 4 (h) of the draft has already been referred to above.

3. *Qualifying securities for sale.* In the present law securities sold in Massachusetts prior to July 1, 1921, are dealt with by section 4 while those sold only since that date are covered by section 5. Section 4 was designed to deal with the situation as it existed when the act first took effect, and is in part obsolete, as the six months period of grace allowed has never been extended. The distinction based upon July 1, 1921, is therefore eliminated in the draft.

4. *Registration of brokers and salesmen.* In practice, securities which, while not fraudulent, are essentially speculative in nature, are largely sold to people who ought least to buy them through the "high pressure" methods of a relatively small number of brokers and salesmen. These activities cannot be adequately restrained unless the commission has ample power to deal with the qualification of registrants. It is therefore expressly provided in section 9 of the draft that a registrant, applying for renewal, may for cause be required to demonstrate that he possesses the qualifications for original registration; and the commission is authorized to prescribe, by rules and regulations, what those requirements shall be, and also to grant limited and conditional registrations. This degree of control is felt to be

quite essential to the effective working of the act. The right given by the present law to a person registered prior to October 1, 1924, and continuously since, to renewal registration merely upon payment of the lawful fee, unless his registration has been revoked by the commission, is however preserved in the draft.

5. *Hearings by the commission.* In section 13 of the draft it is provided that at any hearing before a majority of the commission, any testimony previously taken by the commission may be introduced and may be shown by stenographic transcript. In view of the establishment of the securities division by Statute 1929, Ch. 287, the opportunity afforded persons for hearing before the division and rehearing before the commission, and the assimilating of the procedure upon court review to the procedure under G. L. Ch. 25, sec. 5, it is provided in section 13 of the draft that such court review be limited to issues of law.

6. *Circulars, pamphlets and advertisements.* Section 15 (b) of the draft, following section 11 (b) of the present law, forbids the reference in any stock selling literature to the fact that the provisions of the sale of securities act have been complied with. In addition, each circular, pamphlet and advertisement designed to promote the sale of the security (except governmental securities) is required by the draft to contain a prescribed statement to the effect that the merits of the security as an investment have not been passed upon by public authority. It is hoped that this will help to abate the common evil of having securities represented to gullible persons as in effect approved as investments by state authority.

7. *Sales at dwellings.* House to house solicitations of sales, by "high pressure salesmen," are calculated to reach the class of purchasers least able to guard their own interests and to leave such persons little or no escape from the activities of the salesman. Sales so made form a large portion of the subjects of complaints to the commission. Section 16 of the draft contains an entirely new provision, directed at this evil, and prohibiting sales at dwellings other than the dwelling of the seller. This does not, however, prevent the use of the telephone, telegraph, or mails.

8. *Avoidance of sales made in violation of this chapter.* By the last sentence of section 19 of the draft, an additional penalty for illegal sales is proposed in the form of an express provision giving a purchaser the option to treat such sale as void and to sue for the consideration paid.

9. *Investigation of complaints.* Section 11 (d) of the present law is as follows:

"The commission shall investigate all such complaints as to the sale of fraudulent securities or the fraudulent sale of securities or the violation of any of the provisions of this chapter, as shall be referred to it, and shall report such violations to the attorney-general if it considers the public interest so requires. The attorney-general shall report to the commission in writing on or before the first Wednesday of each year as to the disposition of all such cases so reported to him by the commission."

This provision is eliminated in the draft. We feel that the provision no longer serves any useful purpose, but, on the other hand, may be a cause of the failure to efficiently enforce the criminal provisions of the act. We have found a tendency upon the part of police and prosecuting officials to interpret this provision as relieving them from responsibility of such enforcement. Moreover, the Attorney General has expressed some misgivings as to the propriety of his taking any action for a criminal violation of the act until such violation is reported to him by the Commission.

It has been the view of this Department that it was not intended by the Legislature by this provision to relieve the police and the prosecuting officials from the responsibility of prosecuting those who have committed criminal acts, merely because such criminal acts related to the sale of securities, or were made criminal acts by the provision of the act. We believe that it was intended that the activities of the Department with respect to the sale of securities should primarily be devoted to those matters in which the Commission had the power itself to take relevant action. Of course it becomes the duty of the Department, in the administration of its functions, to bring to the attention of prosecuting officials any evidence of which it has knowledge which tends to indicate that a criminal act has been committed, and this the Department has made a practice of doing. If it is intended that the Department is to assume the burden of the prosecution of

the criminal violations of the provisions of the act, then its inspectors ought to be given the powers of police, and it will be necessary very materially to increase the force. This we think entirely unnecessary and unwise. Where the provisions of the act have been violated, and the violator has thereby subjected himself to a criminal penalty, the prosecution of such offense is of the simplest character. If he has sold a security not qualified under the act, and he is a registered broker or salesman, the matter usually comes upon complaint to the Department, and the Department, upon finding that he has committed the offence, revokes his registration and refers the evidence to the district attorney in the district in which the offence was committed. Where the offence is committed by one who is not registered as either a broker or salesman, the Department can take no affirmative action in relation to the matter, other than that which the prosecuting officials and police may take, namely, a prosecution in the criminal courts. Where such violations are brought to the attention of the Department it is the practice to notify the police in whose jurisdiction the act has taken place. The prosecution of such a violation is so simple that any policeman or prosecuting official ought to be able to prosecute the offence to a successful conclusion.

Moreover, section 7 of chapter 278 of the General Laws provides as follows:

"A defendant in a criminal prosecution, relying for his justification upon a license, appointment, admission to practice as an attorney at law, or authority, shall prove the same; and, until so proved, the presumption shall be that he is not so authorized."

This provision was originally enacted in 1864. It was early passed upon by the Supreme Judicial Court. See *Commonwealth v. Kennedy*, 108 Mass. 292. The decision in that case has not since been modified. Under the statute as so interpreted, the burden is practically thrown upon the defendant who may be apprehended for selling securities in violation of the provisions of the act to prove that he was authorized to sell the securities. Where offences are committed in the pursuance of a sale of securities, which are crimes independent of this statute, no different problem presents itself than exists when the same offence is committed in the sale of property other than securities. Under this situation, in our judgment, it is unnecessary to establish or provide for any special police force to apprehend and prosecute those who sell securities in violation of the act. To remove any question that may be raised as to the power and duty of police to apprehend persons found violating the criminal provisions of the act, and their duty and the duty of prosecuting officials to prosecute such violators, we have left out of the submitted draft this provision.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
LEWIS GOLDBERG,
Commissioners.

Appendix A

AN ACT RELATIVE TO THE EMISSION OF SMOKE IN THE METROPOLITAN DISTRICT

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 1. Section two of chapter six hundred and fifty-one of the acts of nineteen hundred and ten is hereby amended by striking out, in the fourth, fifth and sixth lines of the first paragraph, the words "or of a degree equal to No. 3 of the chart or greater, for more than three minutes in any one hour from stacks of Class II;" and inserting in place thereof the words:—or of a degree equal to No. 2 of the chart or greater, for more than ten minutes in any one hour, but not exceeding during said ten minutes a degree equal to No. 3 of the chart or greater, for more than three minutes from stacks of Class II,—so as to read as follows:—
Section 2. The emission of smoke of a degree of darkness or density equal to No. 2 of the chart or greater, for more than six minutes in any one hour from

stacks of Class I; or of a degree equal to No. 2 of the chart or greater, for more than ten minutes in any one hour, but not exceeding during said ten minutes a degree equal to No. 3 of the chart or greater, for more than three minutes from stacks of Class II; or of a degree equal to No. 2 of the chart or greater, for more than twenty-five minutes in any one hour, but not exceeding during said twenty-five minutes a degree equal to No. 3 of the chart or greater for more than five minutes from stacks of Class III; or of a degree equal to No. 3 of the chart or greater for more than three minutes in any one hour from stacks of Class IV; for more than five minutes in any one hour from stacks of Class V; and for more than twenty seconds in any one period of five minutes from stacks of Class VI, is hereby prohibited.

Section 2. Section six of chapter six hundred and fifty-one of the acts of nineteen hundred and ten is hereby amended by striking out, in the fourteenth line, the words "within twenty-four hours" and inserting in place thereof the words:—as soon as is practicable,— so as to read as follows:—*Section 6.* The board shall have power, after notice and a hearing, to order any person or corporation having control of the operation of the stack, other than an employee, to stop or abate the emission of smoke in violation of this act. Such notice shall be in writing and may be served personally upon such person or corporation, or duly authorized agent by any person authorized by the board to make such service, and in the manner provided by the laws of the commonwealth for the service of writs returnable to the superior court. Such notice shall be served at least forty-eight hours before the time fixed for the hearing, and a copy of the order or decree of the board shall in like manner be served upon such person or corporation or duly authorized agent as soon as is practicable after the same shall be made by the board. In the event of violation, a copy of the observation made in accordance with section four shall be mailed within twenty-four hours to the person or corporation having control of the operation of the stack, and an additional copy shall be delivered upon the premises, as soon as is practicable, to the employee having charge of the stack, unless it is otherwise requested in writing by any such person or corporation.

Section 3. Section seven of chapter six hundred and fifty-one of the acts of nineteen hundred and ten is hereby amended by inserting after the word "board" in the second line thereof the words:—after service thereof upon him or it,—so as to read as follows:—*Section 7.* Any person or corporation violating any order of the board after service thereof upon him or it shall be guilty of a misdemeanor and may be punished by a fine of not less than ten nor more than fifty dollars for the first offence, and not less than twenty nor more than one hundred dollars for every succeeding offence. No person or corporation shall be deemed guilty in accordance herewith, unless the observations, used as evidence at the trial, shall be made as provided in section four. The superior court sitting in equity, on petition of the board or any person authorized by the board, shall have jurisdiction to restrain violations of this act during the prosecution of any proceeding at law for the enforcement of any order of the board.

Appendix B

AN ACT IN AMENDMENT AND REVISION OF THE SALE OF SECURITIES ACT

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 1. The General Laws are hereby amended by striking out chapter one hundred and ten A thereof, as amended, and inserting in place thereof the following:

CHAPTER 110A

Promotion and Sale of Securities

Section 1. This chapter may be cited as the Sale of Securities Act.

Section 2. The following terms shall, in this chapter, have the following meanings, unless the context otherwise requires:

(a) "Commission," the commission supervising and controlling the department of public utilities under chapter twenty-five and also, in so far as determined by the commission under section twelve A of said chapter, the securities division or its director, established by said section.

(b) "Person" shall include a natural person and every form of organization incorporated or unincorporated.

(c) "Security" shall include any evidence of indebtedness, stock, certificate under voting trust agreement, subscription or reorganization certificate, certificate in or under a profit sharing or participation agreement, oil, gas or mining lease or certificate of interest in or under the same, currency of a government other than the United States; and, in general, any certificate or instrument representing or secured by a legal or equitable interest in the capital, assets or property of, or representing indebtedness of, any person.

(d) "Sale," "sell," "selling" or "sold" shall include the issuance, transfer, agreement for transfer, exchange, pledge, hypothecation, mortgage in any form whether by transfer in trust or otherwise, of any security or interest therein; and any option, subscription or other contract, or solicitation, looking to a sale, or offer or attempt to sell in any form, whether spoken or written. The gift or delivery of any security with, or as a bonus on account of, the sale of any thing, shall be deemed a sale of such security.

(e) "Broker" shall include every person, other than a salesman, who in this commonwealth engages, as principal or agent, in the business of selling securities, whether issued by himself or by another.

(f) "Salesman" shall include every person employed, appointed or authorized by a broker to sell securities within this commonwealth.

(g) "Fraud" and "fraudulent" shall have their full meaning as applied or accepted in courts of law or equity, and shall also specifically include the following:— a misrepresentation in any manner, whether intentionally false or due to gross negligence, of a material fact; a promise representation or prediction as to the future not made honestly and in good faith; an intentional failure to disclose a material fact; and the gaining, directly or indirectly, through the sale of any security, of an underwriting, promotion, selling or managing fee, commission or other profit so gross and exorbitant as to be unconscionable or any scheme, device or artifice to gain the same.

(h) "Renewal registration" shall mean a registration immediately succeeding the expiration of a prior registration, by way of renewal thereof.

(i) "Original registration" shall mean any registration other than a renewal registration, whether the person shall have at some time theretofore been registered or not.

(j) Wherever any act is forbidden or restrained, the prohibition or restraint shall apply to any agent; and to any principal, except where the act may be done by a registered broker and is done through a registered broker as agent.

Exempted Securities and Sales

Section 3. Except as hereinafter provided in this section, the prohibitions and restraints imposed by this chapter shall not apply to the following types of sales:—

(a) Any isolated sale; but this exemption shall not include a sale made in the course of repeated and successive transactions of a like character.

(b) Any judicial sale.

(c) Any sale, by a pledge holder or mortgagee, selling in the ordinary course of business, of a security pledged with him in good faith as security for a bona fide debt.

(d) Any sale by an executor, administrator, conservator, guardian, trustee, receiver or trustee in insolvency or bankruptcy, appointed by any court; or any sale by a corporation of its stock for a delinquent assessment made in accordance with law.

(e) The distribution by a corporation of its or other securities, whether as a stock dividend, distribution out of surplus, liquidating dividend or otherwise, to its own security holders or their assigns; the distribution of securities issued under a corporate reorganization or recapitalization by a corporation or corporations party thereto, entirely to its or their security holders or their assigns; or the sale by a corporation of its increased capital stock entirely to and among its stockholders or their assigns; provided in all cases that the same be done without payment of any promotion or underwriting fee, or payment of any salary, commission or expense to any broker or salesman, in connection therewith.

(f) The original issuance and sale by any corporation organized under the laws of this commonwealth of its capital stock at a time when the number of stockholders of said corporation does not, and will not in consequence of such sale, exceed twenty-five.

(g) Any sale of notes secured by mortgage of real or personal property, where the title to the entire security for said notes is sold and transferred therewith.

(h) Any sale of securities to a registered broker.

(i) Sales at public auction of securities not otherwise exempt, if the authority of the commission therefor has been obtained, and upon such conditions as the commission may prescribe.

(j) The commission may, in accordance with such rules, regulations, and upon such conditions and limitations as it may prescribe, exempt other sales and types of sales from the provisions of this chapter.

The commission may for cause forbid any sale exempted under the provisions of (c), (d), (e), (f), (g), (h), (i), and (j) of this section and such sale shall not thereafter be made except as the commission may determine.

Section 4. Except as otherwise provided in this chapter, the prohibitions and restraints imposed by this chapter shall not apply to the following types of securities:—

(a) Evidences of indebtedness absolutely maturing less than fourteen months from the date of issuance thereof and embodying no conversion privilege, option or other right to receive or duty to take any security or thing other than money in payment thereof.

(b) Any security issued or guaranteed as to principal or interest by a government or governmental agency or any public body having power of taxation or assessment.

(c) Securities of, or guaranteed as to principal, interest or dividend by, a corporation owning or operating a railroad or any other public service utility, the issue or guaranty of such securities being regulated or controlled or requiring approval by public officials of this or any other state or of the United States empowered to regulate, control or supervise public service utilities and the issue of securities thereby; and all securities of such public service utility corporation senior to a security thereof exempt as above.

(d) Securities listed upon any stock exchange in Massachusetts which had been doing business continuously for the last ten years prior to August 26, 1921, and upon any other stock exchange in Massachusetts thereafter or hereafter organized which the commission, for the purposes of this exemption, may approve, and all securities senior thereto. Any such stock exchange shall keep on file with the Commission the form or forms of application and the rules adopted by such exchange for the listing of securities, and the exemption hereby created shall continue only so long as such forms and rules shall be acceptable to the commission as indicating in substance that the requirements of such exchange are adequate to guard against fraud; provided, however, that any change in said form of application or rules shall not affect the exemption of securities listed before the adoption of such change, or of securities senior thereto.

(e) Securities which are a legal investment for any savings bank, savings department of any trust company, insurance company or association under the supervision of the commissioner of banks or of the commissioner of insurance of this commonwealth.

(f) Securities issued by and representing an interest in, or direct contract right against, any national bank or corporation created or existing by virtue of the acts of the congress of the United States; by any state bank, trust company, co-operative bank or credit union of this commonwealth or of any other state, where the same is fully organized and doing business under the supervision of the public official controlling banking in such state; or by any corporation under the supervision of the department of banking and insurance of this commonwealth, other than corporations licensed to make small loans.

(g) The securities of any corporation organized under the provisions of chapter one hundred and eighty.

(h) The securities of any corporation organized under the laws of this commonwealth whose authorized capital stock, added to its outstanding securities other

than capital stock, does not exceed twenty-five thousand dollars. This exemption shall not apply to the securities of a corporation having capital stock without par value.

(i) The commission may from time to time, by order, in accordance with such rules and standards as it may prescribe, upon petition or upon its own motion, add to the exemptions of this section other securities and classes of securities, such exemptions to run until otherwise ordered by the commission and to contain such other conditions and limitations, if any, as the commission may prescribe.

Section 5. No security, not exempt under section four, shall be sold, except as exempted by section three, within this commonwealth, until there shall have been filed with the commission a notice of intention to sell the security in question. Upon the filing of said notice, such security may be sold by any broker or salesman registered hereunder, except during such period or periods as such sale may be forbidden under or pursuant to other provisions of this chapter. Within seven days after the filing of said notice, or such further time as the commission may authorize in any case, there shall be filed with the commission a statement, upon such forms as the commission may prescribe, containing, with any other relevant information requested by the commission, the following information relative to the security and the person issuing the same.

(a) The name and address of the person; and, in the case of an organization, the names and addresses of the partners, trustees, directors or other board of management, president, treasurer, secretary, auditor or corresponding officers thereof.

(b) The state or other government, if the person be an organization, under the laws whereof such person was organized, and a reference to such laws.

(c) The general nature of the business transacted or to be transacted by such person, with, if the person be an organization having a written statement of purposes, a copy of such statement of purposes.

(d) The amount of capital devoted and proposed to be devoted to the business in question, with the number of and a classification of the securities issued and to be issued; the amount of the secured debt and the unsecured debt with a brief description of the date of issuance, maturities and character of such debt, and the security, if any, therefor; and the authorized amount of capital stock, certificates of beneficial interest or other securities of like character, with the number and classes of shares into which the same is divided and a brief description of the respective voting rights, preferences, rights to dividends or profits and rights to capital with respect to each class.

(e) The purposes to which the proceeds of the security proposed to be sold are to be applied.

The commission may accept, in lieu of such statement or of any part thereof, a reference to recognized sources of information selected by the commission and containing such information as it deems to be an adequate substitute therefor.

The notice of intention above prescribed may be filed by a person who proposes to sell the security or by the person issuing the security. The statement shall be filed by or in behalf of the person proposing to sell as principal, or the person issuing, the security and shall be dated and verified by the oath of such person, if an individual, or if an organization, by the oath of a majority of the partners, trustees, directors or other members of a managing board thereof, or of other officers or representatives expressly authorized by said managing officers to take such action.

Section 6. The commission shall make such investigation of any security, of which notice of intention to sell shall have been filed with it, as it may deem advisable, and if the information contained in the statement filed under the preceding section appears to it inadequate it may require the filing of such further information, including examinations and reports by reputable accountants, engineers and other experts, verified by oath as prescribed in section five, and also, as to such reports, by the oath of such expert, at the expense of the person or persons seeking to qualify the security for sale, as may in its judgment be necessary to enable it to determine whether the sale of such security would be fraudulent or would result in fraud. At any time after the filing of the notice of intention, and pending such determination, the commission may make an order forbidding the sale of such

security, which order shall remain in force until revoked by the commission. Such security shall not be sold while such order remains in effect.

Section 7. The commission may at any time require any person selling or issuing or proposing to sell or issue any security, of which notice of intention to sell shall have been filed, to file, periodically or otherwise, in such form as it may prescribe, further information showing the financial condition of such issuing person, with any other data deemed advisable by the commission, verified by oath as prescribed in section five, and, as to any financial statements, also by the oath of a reputable accountant. The commission may also require the filing of such full information concerning any security, whether or not exempted by section four, as it may deem necessary, and in the form and verified by the oath required under this and the two preceding sections.

Section 8. The failure to submit the statement required by section five, when due, or to submit any information required under section six or section seven within such reasonable time as the commission shall specify and any extension thereof by the commission, shall in the absence of satisfactory explanation be deemed prima facie evidence of fraud. Whenever the commission is of the opinion, from information disclosed or in its possession that the sale of any security, whether exempt under section four or not, is fraudulent or would result in fraud, it shall make a finding to that effect. Thereafter such security shall not be sold until, and except in accordance with, further action by the commission or by the court, as provided in this chapter.

Section 9. No person shall sell any security within this commonwealth, whether or not such security is exempt under section four, except as provided in section three and section fifteen A, unless he is registered as a broker or salesman by the commission. Registrations under this chapter shall expire on the thirty-first day of December in each year. Any person who was a registered broker or salesman on September 30, 1924, and has been continuously so registered since that date, shall be entitled to renewals, upon payment of the lawful fee, unless his registration be suspended or revoked by or pursuant to the provisions of this chapter. Any other registered broker or salesman who applies for a renewal fourteen days prior to the expiration of his registration shall be similarly entitled to a renewal except that the commission may, for cause, specifically require such person to demonstrate that he possesses the qualifications for original registration before he is registered. An applicant for original registration shall demonstrate to the reasonable satisfaction of the commission that he is of good moral character and of sufficient qualifications to engage in the business proposed. The commission may, by order, promulgate, and from time to time amend or revoke, rules and regulations prescribing the qualifications for registration. The commission may grant in specific cases registrations limited to the performance of specific work or otherwise especially conditioned. No person shall be entitled as of right to registration if he, or, in the case of an organization, any partner, trustee, director or other member of a board of management, or other officer thereof, has been convicted of a felony or of a violation of any provision of this chapter.

Section 10. An application for original registration shall state the applicant's name, residence, mailing address, and the place where the business is to be conducted; together with any other relevant information which the commission may prescribe. It shall be accompanied by a certificate of two citizens of the commonwealth that in their opinion the applicant is, or in case of an organization that the partners, trustees, directors and other officers or managing agents are, honest and of good repute. When required by the commission, an application for original registration as a salesman or for renewal thereof, shall also be accompanied by a photograph, of the type known as a passport photograph, of the applicant, which shall be retained permanently in the files of the department and become part of its records. An applicant for original registration shall furnish under oath such further relevant information as the commission may require. After registration the registered person shall in all instances promptly advise the commission in writing of any change of residence, mailing address, or place of doing business. No non-resident, not having a usual place of business in the commonwealth, shall be registered until he has filed with the commission a writing, in a form approved by the attorney-general, appointing the secretary of the commission to be his

true and lawful attorney upon whom all lawful process in any action or proceeding against him arising out of or connected with any act or acts done by him as such broker or salesman may be served, and agreeing that such process so served on said attorney shall be of the same legal force and validity as if in fact served upon him and that the said appointment and agreement shall remain in force so long as any such liability remains outstanding against him in this commonwealth.

The fee for each original registration and renewal registration shall be fifty dollars in case of a broker and two dollars in case of a salesman. Said fees shall be paid into the state treasury.

Section 11. No person, except as provided in section three, shall sell any security, whether exempt under section four or not, which is to be paid for upon an installment or partial payment plan unless the sale thereof under such plan has been approved by the commission.

Section 12. The commission may at any time require a registered broker or salesman to furnish under oath full information relative to his financial condition and the conduct of his business as a broker or salesman under his present or any prior registration. The failure to supply any information so required within such reasonable time as the commission shall specify and any extension thereof which may be given, shall, in the absence of satisfactory explanation, be deemed prima facie evidence of fraud. If it appears to the commission that any registrant is or has been conducting his business as broker or salesman in a fraudulent manner or in a manner which if continued would result in fraud or is or has been wilfully and purposely evading or seeking to nullify the provisions of this chapter, or has violated any provision of this chapter, whether under his present registration or prior thereto, the commission, upon notice to such registrant, may suspend or revoke his registration as broker or salesman or both. Upon such suspension or revocation, such registrant and any organization of which he is a partner, trustee, director or other member of a board of management, or officer shall not be regarded as registered unless and until such suspension or revocation shall have been modified or annulled by the commission or by the court, but the registration of such organization may be restored by the commission after hearing. Conviction of a felony or of a violation of any provisions of this chapter shall operate forthwith to revoke the registration of the convicted registrant and of any organization of which he may be a partner, trustee, director or other member of a board of management or officer. A registration of any organization so revoked by reason of such connection with the convicted registrant may be restored by the commission after hearing; a registration of the convicted person so revoked shall not be restored, but new application for original registration may be made subject, however, to all the provisions of this chapter.

Section 13. Any interested person aggrieved by any order or finding or refusal or failure to make an order or finding by the commission shall be entitled, upon filing a claim therefor in writing, to a public hearing before a majority of the members of the commission, at which he may be represented by counsel. At such hearing any evidence relevant to the subject matter involved in the proceedings, in which the commission made such order or finding or failed to make an order or finding, may be introduced. Any testimony which was previously taken by the commission relative thereto may be introduced and may be shown by a stenographic transcript thereof. When so requested by any such person, the commission shall rule upon any question of law properly arising in the course of such hearing. Any failure or refusal of the commission to rule upon such question within ten days after such request shall be taken and recorded as a ruling adverse to the person requesting the same. At the conclusion of such hearing, the commission shall reconsider and review the said subject matter and shall, within twenty days thereafter, affirm, modify or rescind the order or finding or refusal complained of. The supreme judicial and superior courts shall have jurisdiction in equity, to review, modify, amend or annul any ruling or order of the commission, but only to the extent of the unlawfulness of such ruling or order. The exercise of the said jurisdiction shall be had conformably to the provisions of section five of chapter twenty-five so far as applicable.

Section 14 (a) The commission shall not issue any certificate or written evidence to a person registered as broker or salesman other than a receipt in such form as it

may approve. Every registered salesman shall have such receipt upon his person and such receipt shall be shown upon demand to any officer authorized to make arrests and to any representative of the commission serving in the securities division but shall not be exhibited to any other person.

(b) The commission shall keep a register of brokers and salesmen properly indexed and open to the public. The registration by the commission of a person as broker or salesman shall, except for such receipt, take the form solely of entering the name of such person upon the register. Suspension or revocation of any registration by the commission shall be in the form of an order. Pursuant to any suspension or revocation, appropriate entry shall be made in the register against the registrant's name. Any subsequent action of the commission, altering the status of such person, shall likewise be entered in the register.

(c) The commission shall likewise keep a record of the mailing address of each registered person. Notice sent by mail to such person at such address by the commission shall be deemed sufficient notice to such person wherever a notice is required under the provisions of this chapter.

(d) All information received by the commission under this chapter concerning securities found by it to be fraudulent and all financial statements so received concerning any securities shall be kept open by the commission to public inspection at reasonable hours and the commission shall supply to the public copies of summaries of such information at charges equaling the cost of typing or printing. The commission may, however, place upon a separate file, not open to the public except upon its special order, any information which it deems in justice to the person filing the same or to any other person should not be made public.

Section 15 (a). All circulars, pamphlets or advertisements issued by a registered broker or salesman concerning any security, whether or not exempt under section four, shall bear the name under which he is registered together with his address and shall be dated. No person shall issue or procure the publication of any circular, pamphlet or advertisement, designed to promote the sale of any security not exempted under section four, within the commonwealth, unless such circular, pamphlet or advertisement is signed by such person and by all the persons contributing to the cost thereof with their respective addresses, and with a statement of their respective interests in such security or unless such circular, pamphlet or advertisement is signed by a registered broker in the name under which he is registered, and with his address, such registered broker being the person, or being one of a group of persons issuing or paying for such circular, pamphlet or advertisement. The commission may at any time require information showing compliance with the above provisions with respect to any circular, pamphlet or advertisement.

(b) No person shall in issuing or publishing any circular, pamphlet or advertisement designed to promote the sale of any security make any reference whatsoever to the fact that the provisions of this chapter have been complied with. Every circular, pamphlet or advertisement designed to promote the sale of any security, except securities exempt under section four (b), within the commonwealth shall contain, in a conspicuous place and form, the statement:—"The merits of any security as an investment are not passed upon by public authority under the Massachusetts Sale of Securities Act."

Section 16. No sale, not exempt under section three, of any security, not exempt under section four, shall be made at a dwelling other than the dwelling of the seller, but this shall not apply to the use of the telephone, telegraph or United States mails.

Section 17. A person shall not be excused from attending and testifying before the commission, acting under any provisions of this chapter, on the ground that his testimony or evidence, documentary or otherwise, may tend to criminate him or subject him to a penalty or forfeiture but, to the full extent necessary to render the above requirement lawful, such person shall not be prosecuted or subjected to a penalty or forfeiture for or on account of any action, matter or thing concerning which he may be required so to testify or produce evidence, except for perjury committed in such testimony.

Section 18 (a). The provisions of section four of chapter twenty-five shall, so far as applicable, apply to the proceedings under this chapter.

(b) The certificate of the commission over the signature of its secretary or its

assistant or administrative secretary shall be competent evidence, where otherwise admissible, in any court as to any act or finding of the commission under this chapter.

Section 19. Nothing in this chapter shall limit any statutory or common law right of any person to bring any action in any court for any act involved in the sale of a security; or the right of the commonwealth to punish any person for the violation of any law, except as provided in section seventeen. A sale of any security in violation of any provision of this chapter shall be voidable at the election of the purchaser.

Section 20. Whoever being required under this chapter to furnish any information, testimony or evidence under oath makes any wilfully false statement under such oath shall be guilty of perjury. Whoever violates any provision of this chapter shall be punished by a fine of not more than five thousand dollars or by imprisonment for not more than two and one-half years, or both. Any officer authorized to make arrests may arrest without a warrant and keep in custody, until he can be taken before a court having jurisdiction of such offence, any salesman selling or offering for sale a security who does not have in his possession a receipt issued to him under the provisions of section fourteen (a) or who does not exhibit such receipt to such officer upon demand. Every court shall upon request furnish to the commission an abstract of the record of the conviction of any person convicted of a violation of any provision of this chapter and of any registered broker or salesman convicted of a felony.

Section 21. If any provision of this chapter, or the application of such provision to any person or circumstances, shall be held invalid, the remainder of this chapter, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

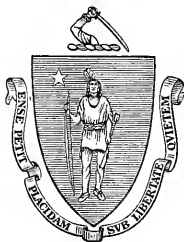
SECTION 2. This act shall not apply to sales, contracts, or agreements made prior to August 26, 1921, or be construed to prohibit the performance of any such contracts or agreements, either by the issuance of stock or otherwise, provided such contracts or agreements were valid and binding upon the parties thereto by the law as it existed at the time such contracts or agreements were made.



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The Commonwealth of Massachusetts

Annual Report
OF THE
Department of Public Utilities
FOR THE
Year Ending November 30, 1931
COMMISSIONERS' REPORT



Publication of this Document approved by the Commission on Administration and Finance

DEPARTMENT OF PUBLIC UTILITIES

State House, Boston, January 20, 1932.

ANNUAL REPORT

To the Honorable Senate and House of Representatives in General Court assembled:

We respectfully submit the twelfth annual report of the Department of Public Utilities for the fiscal year ended November 30, 1931.

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department is as follows:

Steam railroad companies	26
Street railway companies	27
Telephone companies	17
Telegraph companies	5
Steamboat companies	3
Sleeping car companies	1
Express companies	6
Gas companies	54
Electric companies	56
Water companies	52
Motor bus lines	73
Municipal lighting plants	43
Manufacturing and other companies doing an electric business ..	4
Voluntary associations	30
Total	397

During the year the Department held 332 formal hearings and many informal hearings or conferences. The following tabulation, showing the number of petitions and complaints filed and the number of investigations made, indicates the volume of work requiring the Department's attention during the fiscal year:

Petitions: Railroad, 80; street railway, 48; telephone and telegraph, 2; gas, 29; electric, 34; water, 11; sale of securities (appeals), 12; motor bus lines, 112; sight-seeing lines, 2; total, 330.

Special Investigations: Railroad, 1; street railway, 1; telephone and telegraph, 1; gas, 1; motor bus lines, 11; total, 16.

Applications for Special Permits: Railroad, 125; street railway, 4; motor bus lines, 2; steamboat, 1; telephone and telegraph, 1; total, 133.

Complaints: Railroad, 200; street railway, 45; motor bus lines, 99; telephone and telegraph, 908; gas, 142; electric, 338; water, 18; sale of securities, 1,110; smoke abatement, 278; total, 3,138.

Tariff or Schedule Filings: Railroads, freight service, 1,045, passenger service, 333; street railways, 12; express, 55; telephone, 5; telegraph, 3; motor bus lines, 48; electric, 312; gas, 127; water, 5; total, 1,945.

RAILROADS

Due to the continued depression in business the revenues of the railroads operating in the Commonwealth have been, during the past year, seriously affected. Both The New York, New Haven and Hartford Railroad Company and the Boston and Maine Railroad, as a consequence, have been obliged to suspend the payment of dividends on their common stock. The falling revenues of the railroads have necessitated further economies, and as a result there has been some additional withdrawal of service which the public formerly enjoyed. In petitions for restoration of such service the Department has been compelled to take into consideration the declining revenues of the railroads. It has, however, endeavored to obviate, so far as seemed practicable, any undue inconvenience to the public in the withdrawal of service.

The following table shows the number of persons killed and injured at railroad grade crossings during the past year:

Accidents at Grade Crossings during the Year ending November 30, 1931

RAILROADS	PROTECTED CROSSINGS				UNPROTECTED CROSSINGS			
	Num- ber	Killed	In- jured	Ratio of Acci- dents	Num- ber	Killed	In- jured	Ratio of Acci- dents
Boston & Albany	64	3	1	1-16	122	-	-	-
Boston & Maine	469	6	7	1-36	211	6	2	1-27
Boston, Revere Beach & Lynn	11	2	-	1-6	-	-	-	-
Hoosac Tunnel & Wilmington	-	-	-	-	2	-	-	-
Central Vermont	6	-	-	-	40	-	-	-
New York, New Haven & Hartford.	426	7	6	1-33	286	2	9	1-26
Fore River	3	-	-	-	-	-	-	-
Total	979	18	14	1-33	661	8	11	1-35

STREET RAILWAYS

In the effort to effect economy there has been the same trend this year as in the past of the abandonment of street railway mileage. In most cases, service by motor vehicles has been substituted for the street cars. The abandonment of street railway mileage is particularly noticeable in the systems operated by the Eastern Massachusetts Street Railway Company, the Holyoke Street Railway Company, the Springfield Street Railway Company and the Worcester Consolidated Street Railway Company.

The physical condition of our street railways has shown no improvement during the past year. In fact, we are inclined to the opinion that in a majority of the companies there has been an actual deterioration, due to the necessity of practicing strict economy, or due to the belief that it was unwise to make large expenditures in maintenance of lines which probably, in the near future, would be abandoned. Notwithstanding the rigid economies practiced, there has been no increase in the net earnings of the street railways because of the continued decrease in public riding.

CHARLES STATION

The Charles Station, an elevated station which is being constructed near the junction of Cambridge and Charles streets, in the city of Boston, under authority of chapter 444 of the Acts of 1924, is nearing completion. A contract to use this station was executed by this Department, in behalf of the Commonwealth, with the Boston Elevated Railway Company early last year. By reason of the construction of the traffic circle at the junction of Cambridge and Charles streets, and the improvements on the Charles River Embankment, it became possible to construct this station within the amount provided by the Act.

The Engineering Division of this Department designed, prepared plans and specifications, and is now supervising the construction of the station, which will accommodate four car trains. The station building, housing stairs, toilets and fare collection devices, has cast stone for the exterior and salt glazed and buff brick for the interior. Platforms on steel girders extend 300 feet in a westerly direction from the station building with the exterior walls of copper and the interior walls of Kalamein sheathing. One unusual feature of the station design is the elimination of roof columns.

The station building is located within the new Cambridge street traffic circle and connects with the foot passage subway under the circle. The station has been constructed simultaneously with the street widening and the construction of the traffic circle.

After the plans and specifications were completed bids were asked and the contract was awarded the J. Slotnik Company of Boston. Construction started August 10, 1931, and has progressed steadily despite many difficult construction problems. The driving of piles for the foundation of the station building adjacent to two important City of Boston sewers, and the unknown wharves and sewers that were abandoned many years ago due to filling in of

the river front presented additional problems. The rapid transit trains to and from Cambridge have not been delayed at any time during the erection of new girders, platforms, or the cutting down of the old girders.

The new station is expected to be of great service to those using the hospitals nearby and the recreational facilities of the Charles River basin development. It is expected that the station will be open for public travel about the middle of February.

VALUATION OF THE EASTERN MASSACHUSETTS STREET RAILWAY COMPANY

On June 8, 1931, the Senate adopted an order, which directed this department to investigate and determine certain valuations of all the property owned, leased or operated by the Eastern Massachusetts Street Railway Company. A report thereon was made by the department on January 4, 1932.

To determine these valuations it was necessary to make a field inventory which required the temporary employment of seventeen engineers to assist in the field and office work. In addition four inspectors from other divisions of the department assisted in the work.

Field work was started on July 1, 1931, and finished about October 1, 1931, when the work of computing the quantities, applying the prices and estimating the depreciation began. The salaries and expenses of the temporary employees amounted to \$10,351.

MOTOR BUS TRANSPORTATION

There are 93 motor bus lines operating in the Commonwealth under certificates of public convenience and necessity granted by the Department, including those operated by street railway companies and by subsidiaries of railroad corporations. This is a decrease of 5 from the number of lines operated during the preceding year. The total number of certificates granted by the Department during the year was 119, issued to 29 different companies mainly for extensions to or changes in existing routes.

During the year chapter 408 of the Acts of 1931, which revised and codified the laws relating to the transportation of passengers for hire by motor vehicles, became effective. This law provides, in addition to other important changes, that no motor vehicle subject to the provisions of said act shall be operated without a permit from the Department and that no person shall drive such a motor vehicle unless licensed by the Department. The Department has, during the fiscal year, issued 1,484 bus permits and 2,937 driver's licenses, for which fees amounting respectively to \$14,840 and \$2,937 have been received.

Chapter 399 of the Acts of 1931, being an act relative to sight-seeing automobiles carrying persons in or from the city of Boston, became effective in July of this year.

TELEPHONES

The Telephone and Telegraph Division handled 908 cases that required specific treatment. Having in mind that there has been a reduction in the amount of business handled by the telephone companies, many exchanges were visited by Department inspectors with a view to seeing what service conditions were as regards the number of employees.

There were not as many changes in telephone base rate areas, which carry mileage charges in addition to the regular rates, as there were in previous years and particularly between 1926 and 1931. During that period many extensions of base rate areas were made which brought a very substantial reduction in the total amount of money paid by mileage subscribers. There was much less development of telephone areas owing to reduced business and less community development.

The number of telephone stations of the New England Telephone and Telegraph Company during the past year has shown some decrease from last year in practically every section of the state. In Massachusetts, in 1929, the net gain in stations was 28,515; in 1930, the net gain was 10,068, while for eleven months of 1931, there was a net loss of 3,608.

During the year the Boston Central District of this company was changed from partial to complete dial service.

GAS, ELECTRIC AND WATER COMPANIES

The electric companies operating in this Commonwealth during the past year made a good showing, as compared with the country as a whole. This was due largely to the general increase in domestic demand which offset the loss in commercial and industrial uses.

The gas companies have fallen off in output to a small extent, some showing a loss of up to 2 per cent while others through extension of mains have more than held their own.

Two new gas plants, at Hyannis and Falmouth, were installed, using Butane Gas which has been in use at Wareham for some time.

Chapter 171, Acts of 1931, provided for examination and approval by the Department of automatic shut off devices to be attached to the intake pipe of gas meters. There were 25 such devices from 13 makers approved.

There were inspected during the year 87,323 gas meters of which 87,310 were sealed; six electric meters were inspected on complaint; 544 gas inspections made, seven meter provers and 105 calorimeter thermometers calibrated. Fees collected amounted to \$22,388.10.

Complaints and inquiries, aggregating 498, regarding service and extensions were also considered.

We submit a list of gas, electric and water companies that have violated the law by failing to file their annual returns within the limit prescribed by law:

Gas and Electric Companies

Adams Gas Light Company
Amesbury Electric Light Company
Arlington Gas Light Company
Fall River Electric Light Company
Lawrence Gas and Electric Company
Milford Electric Light and Power Company
New England Power Company
North Adams Gas Light Company
Spencer Gas Company
Williamstown Gas Company
The Worcester Electric Light Company
Worcester Suburban Electric Company

Water Companies

Weston Water Company

MUNICIPAL LIGHTING PLANTS

We herewith set forth a list of the municipal gas and electric plants which, from reports filed in 1931 for the year 1930, appear to have violated the provisions of the Statute requiring them to reduce their rates, when the plants have earned a profit in excess of the eight per cent allowed by law:

	Per Cent		Per Cent
Belmont	11.76	Shrewsbury	10.18
Granville	9.27	South Hadley	8.93
Littleton	11.34	Sterling	10.44
Marblehead	9.12	Wellesley	12.47
North Attleborough	9.77	West Boylston	8.64
Peabody	16.74		

SECURITIES DIVISION

In 1931, a total of 4,915 salesmen and 797 brokers were registered. Fees for such registrations received and paid to the treasurer of the commonwealth amounted to \$49,648. A total of 113 new applications for registration as brokers were allowed and 24 such applications were denied. Including members of firms, the total number denied was 86. A total of 1,271 applications for new registrations as salesmen were allowed and 92 such applications were denied. The sale in this commonwealth, during the year 1931, of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$72,298,000, has been forbidden by the Securities Division. Since the effective date of the Sale of Securities Act (August 26, 1921) up to No-

vember 30, 1931, the proposed sale of securities of corporations, trusts, associations or other bodies, having an aggregate par value of \$2,349,516,644, has been prohibited. Forty-four formal hearings were held by the Commission or by the Director of the division during the past year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. The registration of 14 brokers and 335 salesmen was cancelled on the register by orders of the division. The registration of 20 brokers and 206 salesmen was cancelled pursuant to their request. In connection with the registration of brokers and salesmen under the Act, 1562 investigations were made.

DIVISION OF SMOKE INSPECTION

Chapter 412 of the Acts of 1930, which provides for the approval by the Director of the Division of Smoke Inspection of all plans and specifications of new power plants, blast furnaces, incinerators, and all heating plants designed to heat one or more buildings having a floor area above the basement in excess of 5000 square feet, all new chimneys connected with any such plant and all substantial reconstruction of such plants in so far as they affect the emission of smoke, became effective January 1, 1931.

The personnel to carry out the engineering details and the plant inspection for this work was composed of the men in the Smoke Inspection force who were best equipped for that type of work. At present, this arm of the Division consists of one engineer, one assistant engineer, two plant inspectors, and one stenographer. More than 700 plans and specifications were submitted during the first eleven months of 1931. Rules and regulations governing setting heights on boilers and approval of types of stokers and other smoke abatement devices were determined after submission to the Advisory Board for their approval.

We are informed by the Division that it has received general cooperation from those who have had smoke problems, and that many former violators have substituted anthracite coal or coke in place of the bituminous coal formerly used in their boilers that were designed to burn only anthracite coal, and this, together with the increased use of central heating in many downtown buildings, has resulted in a material reduction in the amount of smoke in the district.

The headquarters of the Division of Smoke Inspection is on the twenty-third floor of the United Shoe Machinery Building at 140 Federal Street, Boston, and gives an unobstructed view of almost all the stacks in the entire metropolitan district. In addition to the field force of inspectors a constant watch is kept upon the offending chimneys from the windows.

There were 89 hearings held during the year and 16 orders issued. Two court cases were heard.

Total observations on stationary stacks	176,515
Total violations	1,266
Total observations on locomotives	42,943
Total violations	59
Total marine observations	3,370
Total violations	98
Total number of applications filed	422
Permits refused	5
Applications resubmitted	4
Permits issued	407
Applications pending	4
Certificates issued	347
Certificates issued:	
For new power plants	8
For new heating plants	51
For new stokers	66
For new heavy oil burners	23
For new light oil burners	97
For new incinerators	52
Changed to smokeless fuel	139
Plant inspections	1,281
Cases investigated	331

CAPITAL STOCK AND BONDS

Twenty-seven applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1931. The par value of the securities asked for was \$15,240,425 and the par value of the amount approved was \$14,519,000.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	CAPITAL STOCK APPROVED			Bonds approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Attleboro Gas Light Company Corporation	\$29,000	\$150.00	\$43,500	-	Mar. 20
Barnstable County Gas Company	48,750	25.00	48,750	-	Oct. 19
Barnstable Water Company	-	-	-	\$110,000	July 2
Boston Consolidated Gas Company	6,500,000	100.00	6,500,000	-	June 26
Boston Consolidated Gas Company ¹	850,000	100.00	850,000	-	Dec. 30
Buzzards Bay Gas Company	100,000	25.00	100,000	-	Oct. 19
Eastern Massachusetts Electric Co.	852,600	35.00	1,193,640	-	Nov. 2
East Northfield Water Company	5,000	100.00	5,000	-	June 26
Edison Electric Illuminating Company of Brockton	484,200	40.00	774,720	-	June 30
Greenfield Electric Light and Power Company	340,000	125.00	425,000	-	May 8
Interstate Street Railway Company	-	-	-	50,000	June 16
Lawrence Gas and Electric Company	550,000	45.00	990,000	-	Feb. 18
Lee Electric Company	60,000	150.00	90,000	-	April 6
Lenox Water Company	-	-	-	81,000	June 30
Lexington Gas Company	81,500	100.00	81,500	-	July 31
Lynn Gas and Electric Company	585,000	75.00	1,755,000	-	Dec. 19
Milford Electric Light and Power Company	137,500	300.00	412,500	-	Sept. 18
Northampton Electric Lighting Company	59,000	600.00	354,000	-	Sept. 29
Northampton Gas Light Company	163,775	55.00	360,305	-	Jan. 16
North Shore Gas Company	150,000	25.00	150,000	-	Oct. 30
Old Colony Gas Company	100,000	25.00	100,000	-	Mar. 13
Pittsfield Electric Company	400,000	175.00	700,000	-	Dec. 31
Old Colony Gas Company	-	-	-	590,000	Nov. 16
Randolph & Holbrook Power & Electric Company	8,750	27.50	9,625	-	Jan. 19
United Electric Light Company	320,000	70.00	896,000	-	July 2
United Ticker Service Company ²	50,000	100.00	50,000	-	July 30
Webster & Southbridge Gas & Electric Company	203,125	40.00	325,000	-	Nov. 12
Woburn Gas Light Company	109,800	100.00	109,800	-	July 31
Worcester Gas Light Company ³	1,500,000	100.00	1,500,000	-	Feb. 26

¹ To be used to purchase Charlestown Gas and Electric Company.

² To purchase from the United Telegram Company all its equipment and property.

³ Preferred 6 per cent Cumulative stock, to purchase West Boston Gas Company.

RECOMMENDATIONS FOR LEGISLATION

Since the acquisition of the control of many of our gas and electric companies by so-called holding companies instances have come to our attention of operating companies lending money to other operating and holding companies. If such loans are restricted to that amount of cash which the lending operating company would otherwise properly distribute in dividends, the interests of the consumers would not be adversely affected. On the other hand, gas and electric companies are organized to manufacture and sell gas and electricity and not to engage in the business of lending money. We believe that the lending of money in the way it has been done is beyond the corporate powers of the companies so lending and might properly be attacked by a stockholder. Where a holding company has acquired most of the stock of an operating company, it can be used as a device to force the sale of the stock not owned by the holding company to it, largely upon its own terms. By not declaring dividends and lending its profits to other utilities controlled by it, a powerful influence is brought to bear upon the holders of small amounts of stock to sell their holdings.

We believe that gas and electric companies should be prohibited from lending money, other than advances to their own employees, to a limited amount, unless approved by the Department. We submit a bill, marked "A," to carry this recommendation into effect.

Beginning with 1894, the Legislature has passed successive acts providing for the burying of wires in the city of Boston. Other acts have been passed providing for the burying of wires in limited areas in other communities. The object of placing wires underground is primarily one of public safety, and thus, logically, the overhead wires should first be removed in the densely settled sections of the community. Where the wires are buried in the densely settled portions of a community there is ordinarily no objection by abutters. The company carries its conduits on the abutter's property to a point two feet from the street line, without charge to him, and thus he is only called upon to adjust his internal wiring to the new connection, as in the densely settled portions of the community the buildings usually are built to the line of the street. Where wires are placed underground in the less densely settled portions of the community it is largely because of aesthetic reasons. Such burying often imposes serious expense upon the abutters, as they are called upon to pay for the cost of construction of conduits from two feet inside the street line to their houses, which usually are set back from the street, and, in addition, for the cost of rearranging the internal wiring. This often arouses great indignation upon the part of some of the customers, as they have had no notice of the proposed change from overhead service to underground service until they are informed that they must pay the cost of the conduits from a point two feet inside their premises from the street line to their houses or they cannot be served. They naturally argue that they are satisfied with the overhead service, and that if the change is to be made the entire cost should be borne by the company. We think it obvious that this would be unjust to the other customers of the company, as the cost to the company would be reflected in their rates and they receive little, if any, benefit from the change. Moreover, it is not desirable that the company should have large amounts of capitalizable property, which cannot readily be removed, located on private property which it does not own.

Our attention has been called to the fact that some companies enter into arrangements with local authorities to bury wires without being required to do so by law, and without any notice or hearing being given to those who are affected. We believe that the time has come when provision should be made that the selectmen in towns and the boards of aldermen in cities may require the burying of wires, after notice to the persons assessed as owners of real estate abutting on the street in which it is proposed to place the wires underground, and a public hearing thereon. To protect the abutters and the company from possible unwise and improvident action on the part of the local authorities, we think an appeal should lie, on application of an abutter or the company from the action of the local authorities, to the Department. We present a bill to carry this recommendation into effect, marked "B".

"A"

AN ACT TO PROHIBIT THE LENDING OF MONEY BY GAS AND ELECTRIC COMPANIES

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 1. Chapter one hundred and sixty-four of the General Laws is hereby amended by inserting after section seventeen the following new section:—*Section 17A.* No gas or electric company shall loan its funds except to its employees and then only to an amount not exceeding one thousand dollars to any one employee, unless approved in writing by the department. A director, treasurer or other officer or agent of a gas or electric company who makes a loan or votes to authorize a loan in violation of this section shall be punished by a fine of not more than one thousand dollars or by imprisonment for not more than one year, or both.

"B"

AN ACT RELATIVE TO THE PLACING UNDERGROUND OF CERTAIN WIRES

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 1. Chapter one hundred sixty-six of the General Laws is hereby amended by inserting after section twenty-eight the following new section:—
Section 28A. The board of aldermen in a city or the selectmen in a town, after a public hearing and written notice of the time and place of such hearing, mailed at least seven days prior thereto by the clerk of the city or by the selectmen of the town to all owners of real estate abutting upon that part of a way upon, along or across which wires for the transmission of electricity or intelligence are constructed and maintained, as such ownership is determined by the last preceding assessment of taxation, may order the person or corporation maintaining the wires to place them under the way, in such manner as the board of aldermen or selectmen shall determine. Any person aggrieved by any decision of the aldermen or selectmen hereunder may, within thirty days after notice of said decision, appeal therefrom to the department of public utilities, which shall thereupon give notice and hear all parties interested, and its decision shall be final.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
LEWIS GOLDBERG,

Commissioners.





MASS.
DOCS.
COLL.

The Commonwealth of Massachusetts

Annual Report
OF THE
Department of Public Utilities
FOR THE
Year Ending November 30, 1932
COMMISSIONERS' REPORT



Publication of this Document approved by the Commission on Administration and Finance

DEPARTMENT OF PUBLIC UTILITIES

State House, Boston, January 18, 1933.

ANNUAL REPORT

To the Honorable Senate and House of Representatives in General Court assembled:

We respectfully submit the thirteenth annual report of the Department of Public Utilities for the fiscal year ended November 30, 1932.

Mr. Lewis Goldberg served as a member of this Commission from February 3, 1926 to May 18, 1932, over which period he performed his work efficiently and conscientiously. It was a source of satisfaction to us that his ability was recognized in his appointment as an Associate Justice of the Superior Court.

Mr. Abraham C. Webber was appointed to succeed Mr. Goldberg and qualified as a Commissioner on May 18, 1932.

Mr. Charles D. Jenkins, Director of Gas, Electric and Water Utilities retired on September 2, 1932. He had a remarkable record of service to the Commonwealth extending over a period of nearly fifty years, having entered the employ of the State, October 8, 1882. He is one of the foremost authorities in his field and, the Commonwealth has lost the services of one of its most able and faithful employees.

Mr. Leslie R. Moore, former Supervising Gas Inspector was appointed on October 6, 1932, to the position made vacant by the retirement of Mr. Jenkins.

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department exclusive of those filing under the Sale of Securities Act is as follows:

Steam railroads	26
Street railways	27
Telephone companies	16
Telegraph companies	4
Steamboat companies	3
Sleeping car companies	1
Express companies	4
Gas companies	53
Electric companies	55
Water companies	53
Motor bus lines	67
Municipal lighting plants	42
Manufacturing and other companies doing an electric business..	4
Voluntary associations	29
Total	384

During the year the Department held 332 formal hearings and many informal hearings or conferences. The following tabulation, showing the number of petitions and complaints filed and the number of investigations made, indicates the volume of work requiring the Department's attention during the fiscal year:

Petitions: Railroad, 77; street railway, 41; telephone and telegraph, 3; gas, 18; electric, 39; water, 8; sale of securities (appeals) 12; motor bus lines, 97; sight-seeing lines, 8; steamboat, 1; express, 1; total, 305.

Special Investigations: Railroad, 1; street railway, 1; electric, 4; water, 1; total, 7.

Applications for Special Permits: Railroad, 216; street railway, 11; telephone and telegraph, 1; gas and electric, 10; motor bus lines, 16; steamboat, 5; express, 1; total, 260.

Complaints: Railroad, 132; street railway, 29; motor bus lines, 73; telephone and telegraph, 886; gas, 178; electric, 339; water, 13; sale of securities, 1140; smoke abatement, 272; total, 3,062.

Tariff or Schedule Filings: Railroads, freight service, 1,668; passenger service, 333; street railways, 15; express, 58; telephone, 13; telegraph, 3; motor bus lines, 46; electric, 307; gas, 128; water, 4; total, 2,575.

Hearings were held and a report made upon one matter referred to the Department by the Interstate Commerce Commission.

RAILROADS

The revenues of the railroads operating in the Commonwealth have continued to decline, with the resulting necessity of further economies. This has forced some additional withdrawal of service. On the whole, the public have shown a cooperative spirit, with the result that there have been but few complaints as to the service. So far as has been practicable the Department has continued to endeavor to obviate any undue inconvenience to the public in the necessary curtailment of train operations. It is to be hoped that during the current year the revenues will be such as to make unnecessary any further substantial withdrawal of facilities now enjoyed.

The following table shows the number of persons killed and injured at railroad grade crossings during the year:

Accidents at Grade Crossings during the Year ending November 30, 1932

RAILROADS	PROTECTED CROSSINGS				UNPROTECTED CROSSINGS			
	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings
Boston & Albany	69	-	-	-	117	-	-	-
Boston & Maine	466	4	3	1-67	212	2	5	1-30
Boston, Revere Beach & Lynn	11	-	-	-	-	-	-	-
Hoosac Tunnel & Wilmington	-	-	-	-	2	-	-	-
Central Vermont	6	-	-	-	40	-	-	-
New York, New Haven & Hartford	425	7	10	1-25	289	5	2	1-41
Fore River	3	-	-	-	-	-	-	-
Totals	980	11	13	1-14	660	7	7	1-47

STREET RAILWAYS

There has been a continuation in the abandonment of street railway mileage during the past year. Substitution of service by motor vehicles for street cars has continued. Some lines of street car service have been abandoned without substitution of busses because of the fact that there was not sufficient business to warrant any service. Should conditions improve and lead to the employment of more labor in our factories, it might result in bus service on some of these lines. The Berkshire Street Railway Company and the Middlesex and Boston Street Railway Company now operate service entirely by means of busses.

The physical condition of the street railways has not improved during the past year; in fact, the condition of tracks and cars is not as good as in previous years due to the short falling off of passenger riding and the necessity of practising the strictest economy. Both the gross and the net income of the companies have decreased.

CHARLES STATION

On February 27, 1932, Charles Station, at the junction of Cambridge and Charles streets in Boston, on the Cambridge subway connection, was opened to the use of the public. This station was built by the Department in accordance with Chapter 444 of the Acts of 1924, carrying an appropriation of \$600,000. The cost of this station was \$193,898.43. After the passage of the above act the Boston Transit Department made studies and prepared plans for the Department for the station in a location nearer to the tunnel portal at a cost of \$13,713.76. This plan was subsequently abandoned as it was felt undesirable to build a station with platforms limited to four cars. Subsequently, by reason of the creation of the traffic circle at Charles and Cambridge streets, it was found feasible to construct a station with platforms for six cars, locating the station nearer the bridge. Consequently the present station was built. Under Chapter 362 of the Acts of 1931, there was paid to the City of Boston \$50,000 as a contribution for the construction of sidewalks

upon the central portion of the traffic circle and of an underpass whereby pedestrians may cross beneath the roadways. The total amount spent by the Commonwealth for the projects was \$257,612.19.

INVESTIGATIONS

In accordance with the provisions of section 3 of Chapter 333 of the Acts of 1931, upon notice from the trustees that a deficit had occurred, the Department made an investigation of the operations and expenses of the Boston Elevated Railway Company. A report in writing was made by the Department containing its findings together with recommendations. Such report was transmitted to the Governor and to the members of the Metropolitan Transit Commission on October 5, 1932.

An examination was made of the railway and property of the Worcester Consolidated Street Railway Company and its Receivers acquired by a new company, known as the Worcester Street Railway Company, following a foreclosure sale to determine the limit of the capital of the new company.

In connection with approval of the capitalization of two new water companies, namely the West Warren Water Company, and the Bondsville Water Company, valuations were made of property acquired by said companies from certain industrial plants which previously furnished water to residents of West Warren and Bondsville.

MOTOR BUS TRANSPORTATION

There are 92 motor bus lines operating in the Commonwealth under certificates of public convenience and necessity granted by the Department. This number includes the lines operated by street railway companies and by subsidiaries of railroad corporations, and is a decrease of one from the number of bus lines operated during the preceding year. The total number of certificates granted by the Department during the year was 116, issued to 33 different companies mainly for extensions of or changes in existing routes.

During the year the Department issued 165 bus permits and 1678 driver's licenses, of which 1174 were renewals, and received therefor fees amounting to \$1650 and \$1678 respectively.

Under the provisions of chapter 399 of the Acts of 1931, the Department during the year, granted five certificates of public convenience and necessity for the operation of sight-seeing automobiles in or from the city of Boston.

TELEPHONES

886 complaints were made to the Telephone and Telegraph Division which required special attention.

Further changes in base rate areas were worked out between the Director of the Division and the telephone officials. In several instances these changes resulted in substantial savings to subscribers.

During the year Inspectors of the Division made frequent service inspections and followed closely out-of-order conditions whenever it appeared that the Company was falling behind in restoring service after line and other troubles.

Several informal hearings were held by the Director of the Division as the result of a number of complaints, all of which were finally adjusted without request for formal hearings.

GAS, ELECTRIC AND WATER COMPANIES

While there has been a decline in the use of gas and electricity during the past year, this change has not been so great in this Commonwealth as in other parts of the country. Through extensions and increased use of appliances many electric companies have almost offset the decreased demand. The comparatively new use of oil for house heating and cooking has somewhat reduced the use of gas.

Five additional automatic shut-off valves were tested and approved by this Department under the provisions of chapter 171 of the Acts of 1931.

During the year, 73,956 gas meters were inspected including 10,595 prepayment meters and 1886 gas meters tested on application either of the company or the consumer. Twenty-one calorimeter wet meters, 30 calorimeter ther-

mometers and one meter prover were calibrated. Seven electric meters were tested on complaint, 456 gas inspections were made with 33 violations of the statute found.

The fees collected amounted to \$19,430.55.

Complaints and inquiries totalling 530 regarding service and extensions were also investigated.

We submit a list of gas, electric and water companies that have violated the law by failing to file their annual returns within the limit prescribed by law:

Gas and Electric Companies

Cambridge Gas Light Company
Cape and Vineyard Electric Company
New Bedford Gas and Edison Light Company
Provincetown Light and Power Company
West Boston Gas Company
Worcester Gas Light Company.

Water Companies

Grafton Water Company
Hill Water Company
Millbury Water Company
Oxford Water Company
Salisbury Water Supply Company

MUNICIPAL LIGHTING PLANTS

We herewith set forth a list of the municipal gas and electric plants with earnings which, from reports filed in 1932 for the year 1931, appear to have violated the provisions of the Statute requiring them to reduce their rates when the plants have earned a profit in excess of the eight per cent allowed by law:

	Per Cent		Per Cent
Belmont	9.18	Norwood	8.29
Blandford	11.49	Peabody	27.24
Braintree	10.76	Shrewsbury	9.59
Marblehead	9.96	Wellesley	10.06

SECURITIES DIVISION

In 1932, a total of 4,454 salesmen and 677 brokers were registered. Fees for such registrations received and paid to the treasurer of the Commonwealth amounted to \$43,630. A total of 80 new applications for registration as brokers were allowed and 22 such applications were denied. Including members of firms, the total number denied was 107. A total of 1,097 applications for new registrations as salesmen were allowed and 65 such applications were denied. The sale in this Commonwealth, during the year 1932, of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$158,678,399.14, has been forbidden by the Securities Division. Since the effective date of the Sale of Securities Act (August 26, 1921) up to November 30, 1932, the proposed sale of securities of corporations, trusts, associations or other bodies, having an aggregate par value of \$2,508,195,043.14 has been prohibited. Thirty-nine formal hearings were held by the Commission or by the Director of the division during the past year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. Twelve appeals were made to the Commission from orders of the Securities Division. The registration of 6 brokers and 282 salesmen was cancelled on the register by orders of the division. The registration of 21 brokers and 270 salesmen was cancelled pursuant to their request. In connection with the registration of brokers and salesmen under the Act, 1350 investigations were made. In addition to the formal hearings, approximately 1140 complaints against brokers and salesmen were investigated by the Division. Three cases were referred to the Attorney General during the year.

DIVISION OF SMOKE INSPECTION

During the fiscal year ending November 30, 1932 there were submitted 547 applications for the approval of plans under the provisions of Chapter 412 of the Acts of 1930; 9 permits were refused; 4 applications were resubmitted; 533 permits to install and 537 permits to operate were issued. Undoubtedly with the resumption of normal business activities, this number will be greatly increased. There have been 231,976 observations for the same period and 1165 violations; 272 complaints were received and investigated; 3326 plant inspections were made; 261 hearings given; 54 orders issued and 4 court cases.

Due to the depression there has been an even greater use of soft coal in boilers than heretofore and the Division has aimed to assist the public in showing how cheaper grades of fuel can be burned without violation of law, by making changes in boilers.

CAPITAL STOCK AND BONDS

Twenty applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1932. The par value of the securities asked for was \$21,071,073.24, and the par value of the amount approved was \$21,071,073.24.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	CAPITAL STOCK APPROVED			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Barnstable County Gas Company	\$50,000	\$25.00	\$50,000.00	-	June 3
Boston Elevated Railway	-	-	-	\$5,709,000.00	July 12
Boston Elevated Railway	-	-	-	600,000.00	Oct. 18
Brockton Gas Light Company	286,900	25.00	286,900.00	-	Jan. 12
Buzzards' Bay Gas Company	50,000	25.00	50,000.00	-	June 3
Central Massachusetts Electric Com- pany	262,800	100.00	262,800.00 ¹	-	Nov. 4
Clinton Gas Light Company	53,000	50.00	106,000.00	-	May 19
Fitchburg and Leominster Street Railway Company	-	-	-	40,913.70 ²	Jan. 27
Gardner Electric Light Company	100	133.33	133.33 ³	-	Jan. 29
Lee Electric Company	81,400	135.00	109,890.00	-	Mar. 4
Leominster Gas Light Company	50,000	100.00	50,000.00	-	April 29
Lowell Gas Light Company	-	-	-	950,000.00	Oct. 27
Middlesex and Boston Street Rail- way Company	-	-	-	- ⁴	Dec. 23
New England Power Company	1,200,000	100.00	1,200,000.00 ⁵	-	May 6
Old Colony Railroad Company	-	-	-	1,500,000.00 ⁶	June 3
Pittsfield Coal Gas Company	-	-	-	500,000.00	July 8
Southeastern Massachusetts Power & Electric Company	139,625	30.00	167,550.00	-	Jan. 22
West Warren Water Company	38,000	100.00	38,000.00 ⁷	-	Nov. 23
Worcester Street Railway Company	4,500,000	100.00	4,500,000.00 ⁸	2,332,000.00	} June 14
	-	-	-	252,000.00 ⁹	
	-	-	-	84,334.54 ⁹	
Worcester Street Railway Company	2,391,000	100.00	2,391,000.00 ¹⁰	-	June 20

¹ To purchase Ware Electric Company.

² Notes.

³ To purchase New Salem Electric Company.

⁴ Maturity of bonds extended 10 years.

⁵ Preferred Stock.

⁶ Bonds of \$1,000,000 to be refunded.

⁷ Original stock—to purchase water system of The Thorndike Company.

⁸ To purchase Worcester Consolidated Street Railway Company.

⁹ To assume equipment trust obligations of Worcester Consolidated Street Railway Company.

¹⁰ Preferred stock; in exchange for equal amount of common stock.

RECOMMENDATIONS FOR LEGISLATION

1. The financial collapse of certain companies and trusts organized to acquire the control of operating companies in this country has brought forcibly to public attention certain evils growing out of the operation of such so-called holding companies. As a result, there is a widespread agitation for their regulation and control. As a consequence of this agitation, unwise Federal and

State legislation will be proposed, and some may be adopted through lack of conception of the distinction of the problem of the regulation of public utilities in the interest of the consumer and that of the control of the so-called holding company in the interest of the investor. If there is effective regulation of the operating companies and their relations with the so-called holding companies and their agencies, in large measure any serious effect upon the consumer by reason of the stock of the operating companies being held by holding companies will be eliminated. We believe that the problem of the so-called holding companies and the correction of the evils resulting from them should not be confused with that of the regulation of public utilities. The main object of the regulation of public utilities is to secure reasonable rates and efficient service without discrimination. The securing of this main object is likely to be impaired by legislation, either Federal or State, which seeks to regulate the holding company as if it were an operating company. Whenever the Federal or State government undertakes the regulation of the so-called holding company's securities and its financial operations, countenance will be given to the thought that the consumer should pay rates sufficient to sustain the value of the securities of the holding companies so regulated, and whose sole value ought usually to be that of the securities of the operating companies which it owns and upon which its securities are pyramided. Apart from the regulation of the operating company in its dealings with the holding company, we think the evils arising from the activities of the holding company should be dealt with as a Blue Sky problem or by direct criminal statutes.

In Massachusetts the evils of the holding company have not been so apparent as in other parts of the country. This no doubt is due to the fact that the regulation of public utilities has obtained here for a much longer period of time than in most parts of the country, and the rates of the public utilities have been regulated on a different basis. Such disadvantages as result from the holding company here, so far as the consumer is concerned, arise from the interrelation of the utility with the holding company and its subsidiaries. So long as we are able to regulate our utilities according to Massachusetts traditions, which have now obtained for over a century, the pyramiding of the securities upon the stock and other securities of the utilities will, in the long run, be difficult. When rates are based upon the capital honestly and prudently invested in the utility, the income of the holding company derived from the utility will not sustain such pyramiding of securities. It is fundamental to the problem that we retain our traditional method of regulation. To effect this result, chapter 379 of the Acts of 1929 was enacted. The bill as enacted did not entirely meet with the approval of the Department. We felt then, as we do now, that the bill as it passed the House of Representatives was essential to the protection of the traditional method of regulation of rates in Massachusetts and the protection of the interests of the public. Since that time we have not felt it wise until this year to recommend amendments to the act to bring it into the form that it originally passed the House of Representatives. Sufficient time has now elapsed so that it now may be reconsidered, free from the heat of controversy that was then engendered, and, we believe, without serious effect upon the financial credit of the operating companies. We accordingly recommend the passage of the necessary legislation.

2. The holding companies, in their efforts to derive income in addition to that obtained through dividends, frequently resort to all sorts of contractual relations with the operating utilities which they control. These contracts in any rate proceeding necessarily are subject to suspicion and to careful scrutiny. The holding company being represented on both sides of the bargain, the contracts are not entered into at arm's length. A device often resorted to is lending of money by the holding company, or one of its subsidiaries, to the operating utility which it controls at rates in excess of what the utility might borrow the money elsewhere. We think the time has arrived when some control over borrowing money, payable in three years or less, should be granted to the Department. At present a gas, electric or water company cannot issue evidences of indebtedness, payable at a future period of more than three years, without the approval of the Department. To control in some measure the borrowing of money for periods of less than three years we recommend the necessary legislation

3. While we cannot say that a management or other contract entered into between a holding company and an affiliated operating company is inherently wrong, we feel that greater publicity is required of such contracts, in the public interest, than is necessary where such contracts are made between companies in no way affiliated. Where such contracts are the subject of publicity they are less likely to be unfair to the operating company. Accordingly, we recommend the passage of the necessary legislation.

4. Under the provisions of chapter 412 of the Acts of 1930, no new power plant, blast furnace, incinerator, or heating plant designed to heat one or more buildings having a floor area above the basement in excess of 5,000 square feet, intended to burn fuel or waste material, and no new chimney connected with any such plant, shall be erected or used, and no such plant shall be substantially reconstructed until plans and specifications of the same, so far as they affect the emission of smoke, shall have been filed with the Division of Smoke Inspection of the Department and approved by the Director of said Division, and a permit issued by him for the erection, construction or reconstruction and the use thereof.

Suggestions have, from time to time been made by those interested in the finances of the Commonwealth that the Department should charge a fee for the examination of such plans and the issuing of the permit. We have felt that under the terms of the act we were not authorized in requiring such fees. The cost of administration of this act is likely to increase substantially as time goes on. We think, in view of the financial situation of the Commonwealth and the need to effect economies in administration in every way reasonably possible, that if this provision of law is to continue to be enforced, provision should be made authorizing the Department to exact fees for the examination of the plans and the issuing of the permits. Accordingly we recommend the necessary legislation.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
ABRAHAM C. WEBBER,
Commissioners.

MASS.
DOCS.
COLL.

The Commonwealth of Massachusetts

ANNUAL REPORT
OF THE
Department of Public Utilities
FOR THE
Year Ending November 30, 1933
COMMISSIONERS' REPORT



DEPARTMENT OF PUBLIC UTILITIES

ANNUAL REPORT

State House, Boston, January 17, 1934.

To the Honorable Senate and House of Representatives in General Court Assembled:

We respectfully submit the fourteenth annual report of the Department of Public Utilities for the fiscal year ended November 30, 1933.

Henry W. Seward, Director of the Railway and Motor Bus Division, died on February 4, 1933. Mr. Seward was appointed a railroad inspector by the Board of Railroad Commissioners on November 27, 1907, and served in that capacity until October 18, 1919, when he was appointed Chief of the Inspection Division of the Department of Public Utilities. This title was later changed to that of Director of the Railway and Motor Bus Division. Prior to his appointment as railroad inspector, he was employed by the Fitchburg Railroad Company in various capacities for over twenty years, serving as Station Agent, Telegraph Operator and Train Despatcher, Clerk in the General Superintendent's office, Ticket Seller and Assistant Paymaster. He therefore had a varied experience in railroad matters and this experience combined with his ability and integrity made him a valued employee of the Commonwealth. This Department and the Commonwealth lost the services of an experienced, able and honest officer by his death.

John H. Parant was appointed inspector by the Board of Railroad Commissioners on November 27, 1907, and served until March 20, 1933, when he was retired because he had reached the age of seventy. Prior to his appointment as inspector, he was employed as Yard Clerk and Brakeman, Yard Conductor and Assistant Yardmaster, Passenger Brakeman, Baggage-master, Passenger Conductor and Claim Agent with the Boston and Maine Railroad for some twenty-five years. He rendered efficient and valuable service to the Commonwealth during the entire term of his employment.

Ernest S. Rafuse was appointed inspector to fill the position made vacant by the retirement of Mr. Parant.

Edward Stevens, who served as deputy meter inspector since April 1, 1911, retired on April 11, 1933, having reached the age of 70 years, after 22 years of efficient service. An exceedingly conscientious man, Mr. Stevens was always faithful to his daily round of duty, and it is to be regretted that he was compelled to leave the employ of the Commonwealth.

The number of corporations, private and municipal, persons, firms, and associations under the jurisdiction of and filing annual returns with the Department exclusive of those filing under the Sale of Securities Act is as follows:

Steam railroads	25	Electric companies	55
Street railways	28	Water companies	50
Telephone companies	15	Motor bus lines	66
Telegraph companies	4	Municipal lighting plants	41
Steamboat companies	3	Manufacturing and other companies	
Sleeping car companies	1	doing an electric business	4
Express companies	4	Voluntary associations	31
Gas companies	52		
		Total	379

During the year the Department held 390 formal hearings and many informal hearings or conferences. The following tabulation, showing the number of proceedings instituted, indicates the volume of work requiring the Department's attention during the fiscal year:

Petitions: Railroad, 57; street railway, 27; gas, 37; electric, 46; water, 8; sale of securities (appeals) 14; motor bus lines, 103; sight-seeing lines, 1; total, 293.

Special Investigations: Railroad, 1; street railway, 1; electric, 7; water, 4; total, 13.

Applications for Special Permits: Railroad, 221; street railway, 16; gas and electric, 13; motor bus lines, 21; steamboat, 4; express, 4; total, 279.

Complaints: Railroad, street railway and motor bus lines, 88; telephone and telegraph, 880; gas, 201; electric, 543; water, 26; sale of securities, 1140; smoke abatement, 243; total, 3121.

Tariff or Schedule Filings: Railroad, freight service, 1572; passenger service, 344; street railway, 31; express, 86; telephone, 71; telegraph, 2; motor bus lines, 39; electric, 331; gas, 155; water, 3; total, 2634.

RAILROADS

The revenues of the railroads operated in the Commonwealth have continued to decline, their revenues during the year 1933 being substantially less than those of 1932. As we pointed out in our report of last year the decline in revenues necessarily forces economies and these economies often result in the withdrawal of service. The public have continued to show a co-operative spirit, however, with the result that there have been few complaints as to service.

The financial situation of the railroads has made it impossible to undertake any very substantial work in the elimination of grade crossings. The National Industrial Recovery Act has made available to the Commonwealth funds to be employed in the relief of unemployment. We believe that these funds could be devoted to no better purpose than the elimination of grade crossings on the main lines of the railroads. The expenditures would be of lasting benefit to the public and would facilitate travel both on the railroads and the highways and would, at the same time, eliminate a source of danger to the public. The National Industrial Recovery Act makes reference to the elimination of grade crossings as a means of relief of unemployment. We recommend that such funds as the Commonwealth can use, together with funds received from the United States government, be used to a substantial extent in the elimination of grade crossings without requiring contribution by the railroad. The following table shows the number of persons killed and injured at railroad grade crossings during the year:

Accidents at Grade Crossings during the Year Ending November 30, 1933

RAILROADS	PROTECTED CROSSINGS				UNPROTECTED CROSSINGS			
	Number of Cross-ings	Killed	In-jured	Ratio of Casual-ties to Cross-ings	Number of Cross-ings	Killed	In-jured	Ratio of Casual-ties to Cross-ings
Boston and Albany.....	71	2	—	1-35	115	1	—	1-115
Boston and Maine.....	458	3*	—	1-153	219	4	2	1-37
Boston, Revere Beach & Lynn	11	—	—	—	—	—	—	—
Hoosac Tunnel & Wilmington	—	—	—	—	2	—	—	—
Central Vermont.....	6	—	—	—	40	5	—	1-8
New York, New Haven & Hartford.....	427	3	5	1-53	285	3	2	1-57
Fore River.....	3	—	—	—	—	—	—	—
Totals.....	976	8	5	1-75	661	13	4	1-39

* Including 1 crossing tender killed.

Total Number of Grade Crossing Accidents.....	22
Number involving automobiles.....	19
Number involving pedestrians.....	3

STREET RAILWAYS

Service by motor vehicles in place of street cars has increased. Trolley cars are now operated only by the following companies:

Boston Elevated Railway Company
 Eastern Massachusetts Street Railway Company
 Union Street Railway Company
 Worcester Street Railway Company
 Linwood Street Railway Company
 Springfield Street Railway Company
 Holyoke Street Railway Company
 Greenfield & Montague Transportation Area

All the above companies, except the Linwood Street Railway Company and the Greenfield and Montague Transportation Area, also operate busses.

Trackless trolleys and busses are operated by the Fitchburg and Leominster Street Railway.

The Athol and Orange Transportation Area has abandoned operation. This area is now served by the Gardner and Templeton Street Railway Company by busses.

During the year the Northampton Street Railway Company abandoned the use of street cars and is now operating only busses.

SPECIAL INVESTIGATIONS

In accordance with the provisions of section 3 of chapter 333 of the Acts of 1931, upon notice from the trustees that a deficit had occurred, the Department made an investigation of the operations and expenses of the Boston Elevated Railway Company. A report in writing was made by the Department containing its findings together with recommendations. Such report was transmitted to the Governor and to the members of the Metropolitan Transit Council on September 29, 1933.

An investigation in accordance with the provisions of chapter 17 of the Resolves of 1933 relative to the erection and maintenance of protective devices at railroad crossings, drawbridges and other locations was made. A hearing thereon was held and a report was submitted to the General Court.

In accordance with the provisions of an order by the Senate, the Department inquired into the feasibility and expediency of prohibiting so-called service charges in domestic or household rate schedules of gas and electric companies. A hearing was held thereon and a report submitted to the Clerk of the Senate.

MOTOR VEHICLES

There are ninety-two persons and corporations operating motor vehicles under certificates of public convenience and necessity granted by the Department. These include railways and railroads and subsidiaries of the latter. The number of certificates of public convenience and necessity granted by the Department during the year was eighty. These were issued to 24 different persons and corporations mainly for extensions of or changes in existing routes.

During the fiscal year the Department issued 173 bus permits and 25 duplicate permits, and received therefor fees amounting to \$1,730 and \$12.50 respectively; and 4,164 drivers' licenses and 4 duplicate licenses, and received therefor fees amounting to \$4,164, and \$2 respectively; with postage 10c., making a total of \$5,908.60.

No additional certificates have been granted during the year for the operation of sight-seeing automobiles under the provisions of chapter 399 of the Acts of 1931.

The operation of chapter 372 of the Acts of 1933, providing for the regulation by the Department of motor vehicles transporting property for hire, has been suspended by the filing of a referendum petition.

GAS, ELECTRIC AND WATER COMPANIES

While there are no figures available as yet as to the revenues of the gas and electric companies, we are of the opinion that the figures will show no substantial gain for the year 1933 over that of 1932 in most of the companies.

76,971 meters were tested and sealed by the Gas, Electric and Water Division, 19,411 of these being prepayment meters. 1603 meters of this total were meters tested on complaint of either the consumer or the company. Seventeen wet experimental meters, one 5-foot prover and thirteen calorimeter thermometers were calibrated. One additional automatic gas valve was examined and approved under the provisions of section 75A of chapter 164 of the General Laws (Tercentenary Edition). During an investigation of a district where a general complaint had been made of sudden increases in the bills rendered, two electric light meters were tested on complaint of the consumer while seven others were selected and tested by the Division.

627 tests of the quality of the gas supplied by the various gas companies were made, 48 instances of the gas being below standard being found.

770 complaints were received and investigated against the various gas, electric and water companies, 201 of which were gas, 543 electric and 26 water.

The total amount of fees received was \$19,313.80; and for miscellaneous sales \$271.55, making a total of \$19,585.35.

TELEPHONE AND TELEGRAPH

For a number of years prior to 1930, at which time the telephone company stations reached the maximum, there were many extensions of base rate areas which afforded greater telephone opportunities without the imposition of the so-called mileage charge which has always been a disturbing factor. Since 1930 there has been comparatively little community growth throughout the state with the result that during the past year the number of base rate extensions has been very few.

The decrease in the number of stations continued during the year, the minimum being reached in November which showed 794,103 as against 826,882 stations on January 1, 1933. The net loss since the peak of 1930 has been 120,879 stations in Massachusetts.

About the usual number of complaints were made during the year, having to do mostly with service and collection practices of the company.

CAPITAL STOCK AND BONDS

Sixteen applications for approval of issues of stock, bonds or notes have been decided during the year which ended November 30, 1933. The par value of securities to the amount of \$15,373,100, was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	CAPITAL STOCK APPROVED			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Arlington Gas Light Company	\$381,500	\$101.18	\$386,001.70 ¹	—	June 16
Bondsville Water Company	25,000	100.00	25,000.00 ²	—	Dec. 13
Boston and Albany Railroad Company	—	—	—	\$7,000,000	Mar. 14
Boston Elevated Railway Company	—	—	—	3,000,000 ³	May 26
Boston Metropolitan District	—	—	—	3,000,000 ⁴	June 8
Boston, Revere Beach and Lynn Rail- road Company	—	—	—	1,000,000 ⁵	Jan. 19
Harvard Electric Company	65,000	141.14	91,741.00 ⁶	—	May 5
Malden and Melrose Gas Light Com- pany	1,062,425	25.00	1,062,425.00	—	Feb. 9
Marlborough Electric Company	221,500	100.00	221,500.00 ⁷	—	July 21
Montaup Electric Company	265,300	100.00	265,300.00	—	June 5
Old Colony Railroad Company	—	—	—	600,000	Nov. 10
Pittsfield Electric Company	1,100,000	125.00	1,375,000.00	—	July 12
Pittsfield Electric Company	200,000	100.00	200,000.00 ⁸	—	Dec. 2
Westborough Gas and Electric Com- pany	68,000	125.00	85,000.00	—	Jan. 18
Weymouth Light and Power Company	306,250	25.00	306,250.00 ⁹	—	July 21
Worcester Suburban Electric Company	78,125	40.00	125,000.00 ¹⁰	—	Nov. 17

¹ To purchase Woburn Gas Light Company and Lexington Gas Company.

² Original capital stock.

³ Registered or coupon bonds or notes.

⁴ Approved as to maturity and interest rate only.

⁵ Maturity of bonds extended five years.

⁶ To purchase Ayer Electric Company.

⁷ To purchase Westborough Gas and Electric Company.

⁸ To purchase Lee Electric Company.

⁹ To purchase Randolph and Holbrook Power and Electric Company.

¹⁰ To purchase The Blackstone Electric Light Company.

MUNICIPAL LIGHTING PLANTS

We herewith set forth a list of the municipal gas and electric plants with earnings which, from reports filed in 1933 for the year 1932, appear to have violated the provisions of the Statute requiring them to reduce their rates when the plants have earned a profit in excess of the eight per cent allowed by law:

	Per Cent		Per Cent
Braintree	8.88	Peabody	30.14
Littleton	8.57	Shrewsbury	8.62
Norwood	10.50	South Hadley	8.90

SECURITIES DIVISION

In 1933, a total of 3,841 salesmen and 651 brokers were registered. Fees for such registrations received and paid to the treasurer of the Commonwealth amounted to \$51,765 and miscellaneous fees of \$23, making a total of \$51,788. The sale in this Commonwealth, during the year 1933, of securities of persons, corporations or other organizations having an aggregate par value of \$204,437,688.00 has been forbidden by the Securities Division. Since the effective date of the Sale of Securities Act (August 26, 1921) up to November 30, 1933, the proposed sale of securities having an aggregate par value of \$2,712,632,731.14 has been prohibited. Fifty-one formal hearings were held by the Commission or by the Director of the division during the past year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. Fourteen appeals were made to the Commission from orders of the Securities Division. The registrations of 20 brokers and 195 salesmen were cancelled pursuant to their request. The registrations of 11 brokers and 268 salesmen were cancelled on the register by orders of the division. In addition to the formal hearings, approximately 1140 complaints against brokers and salesmen were investigated by the Division. Four cases were referred to the Attorney General during the year.

SMOKE ABATEMENT

In accordance with the provisions of Chapter 76 of the Acts of 1933 the Division of Smoke Inspection was abolished May 31, 1933. The said Chapter further repealed Chapter 412 of the Acts of 1930, which provided that the Director of the Division of Smoke Inspection should approve the plans and specifications of all new power and heating plants, blast furnaces, incinerators, chimneys, and plans for substantially reconstructing plants which existed as of January 1, 1931.

After May 31, 1933, the enforcement of the provisions of Chapter 651 of the Acts of 1910 has been carried on by the Department as formerly carried on prior to the creation of the Division. On account of the greatly reduced budget available for the second half of the year, the number of employees was reduced from nineteen to six. On May 31, 1933, the offices on the twenty-third floor of the United Shoe Machinery Building were vacated and on the day previous such of the furniture and equipment as was needed for the smaller force was moved to the new office on the tenth floor of the Public Works Building at 100 Nashua street.

During the six months ended May 31, 1933 there was submitted 90 applications for the approval of plans under the provisions of Chapter 412 of the Acts of 1930. 93 permits to install and 124 permits to operate were issued. During the year ended November 30, 1933, 180,040 observations were made and there were 712 violations. 112 hearings were given, 29 orders were issued and there were 4 court cases.

Respectfully submitted,

HENRY C. ATTWILL, *Chairman*,
HENRY G. WELLS,
LEONARD F. HARDY,
A. C. WEBBER,
LEO H. LEARY,

Commissioners.

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The Commonwealth of Massachusetts

ANNUAL REPORT
OF THE
Department of Public Utilities
FOR THE
Year Ending November 30, 1934
COMMISSIONERS' REPORT



DEPARTMENT OF PUBLIC UTILITIES ANNUAL REPORT

100 Nashua Street, Boston, January 16, 1935.

To the Honorable Senate and House of Representatives in General Court Assembled:

We respectfully submit the fifteenth annual report of the Department of Public Utilities for the fiscal year ended November 30, 1934.

Leo H. Leary, of Brookline, was appointed a commissioner to succeed Everett E. Stone, of Springfield, and assumed the duties of the office on January 2, 1934. Mr. Stone's severance with the Department terminated a long and creditable career in the service of the Commonwealth. He was appointed to the Public Service Commission in 1913 and to the Department of Public Utilities upon its organization in 1919 and served as a commissioner of the Department from that date. His service was distinguished by fidelity to the public welfare and untiring zeal in the discharge of his duties.

Michael J. Scully, who had served as a railroad inspector since his appointment by the Board of Railroad Commissioners in 1912, retired on December 4, 1933. Mr. Scully's long and practical experience in railroad operation made his services of great value to the Department and he discharged his duties with marked ability and intelligence.

William H. O'Brien, director of Telephone and Telegraph Utilities, retired on September 10, 1934. He had occupied this position since his appointment in 1913 by the Public Service Commission. Mr. O'Brien's long and intimate knowledge of matters relating to telephone and telegraph utilities made his services as head of this branch of the Department's activities especially valuable to the Commonwealth. His work in the Department constituted an enviable record of service.

Thomas W. Witcher, a railroad inspector since his appointment in 1918 by the Public Service Commission, retired on November 30, 1934, at his own request. His duties were mainly in connection with the inspection of locomotives, for which his training and experience especially fitted him, and were performed with credit to himself and to the Department.

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads	24	Electric companies	51
Street railways	28	Water companies	79
Telephone companies	15	Motor bus lines	63
Telegraph companies	3	Municipal lighting plants	41
Steamboat companies	3	Manufacturing and other companies	
Sleeping car companies	1	doing an electric business	4
Express companies	3	Voluntary associations	31
Gas companies	52	Total	398

During the year the Department held 239 formal hearings and many informal hearings and conferences. In addition to the above, twenty-two days were devoted to hearings in relation to applications filed with the Department for certificates and permits as common and contract carriers under a recent law placing the operation of motor vehicles transporting property for hire under the jurisdiction of the Department. The following tabulation, showing the number of proceedings instituted, indicates the volume of work requiring the Department's attention during the fiscal year:

Petitions and Applications: Railroad, 45; street railway, 26; gas, 19; electric, 29; water, 8; sale of securities (appeals) 9; motor bus, 106; motor truck, 3,002; sight-seeing, 1; telephone, 2; miscellaneous, 1; total, 3,248.

Special Investigations: Street railway, 1; gas, 1; water, 4; total, 6.

Special Permits: Railroad, 179; street railway, 32; gas and electric, 8; motor bus, 18; steamboat, 3; express, 2; water, 2; total, 244.

Complaints: Railroad, street railway and motor bus, 232; telephone and telegraph, 1020; gas, 230; electric, 498; water, 32; sale of securities, 1165; smoke abatement, 130; total, 3,307.

Tariff or Schedule filings: Railroad, freight service, 1474; passenger service, 347; street railway, 36; express, 135; telephone, 47; motor bus, 35; electric, 454; gas, 206; water, 3; total, 2,737.

RECEIPTS

Year ended November 30, 1934.

Public Service Division

Motor Buses:

Fees, drivers' licenses	\$ 3,398.00	
Fees, bus permits	3,660.00	\$7,058.00

Motor Trucks:

Fees, certificates and permits	30,210.00	
Fees, distinguishing plates	7,922.00	38,132.00

Rent of land, Brattle Square, Cambridge (Cambridge Subway)		2,500.00
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Miscellaneous:

Copying	6.00	
Sales	41.20	47.20
		<u>\$47,737.20</u>

Gas and Electric Division

Fees, gas meter tests	16,911.00	
Fees, electric meter tests	35.05	16,946.05

Miscellaneous:

Sales	349.00	349.00
		<u>\$17,295.05</u>

Securities Division

Fees, registration of brokers	32,100.00	
Fees, registration of salesmen	16,795.00	\$48,895.00

Miscellaneous:

Copying	4.70	
Sales	26.00	30.70

Total		<u>\$48,925.70</u>
		<u>\$113,957.95</u>

RAILROADS

The condition of the railroads has during the past year shown no substantial improvement. Such gain in traffic as has been realized has been offset by increased costs of operations.

STREET RAILWAYS

Of the thirty-two street railway companies operating in Massachusetts when this Department was established in 1919, only seventeen companies (including one transportation area) are in existence at the present time. The two larger companies, the Boston Elevated Railway Company and the Eastern Massachusetts Street Railway Company, have been operated under the control of the Commonwealth since 1918. Only one of the seventeen companies conducts its transportation service exclusively by rail. Ten companies operate motor buses

only and the remaining six companies furnish a very substantial portion of their passenger service by buses.

SPECIAL INVESTIGATIONS

In accordance with the provisions of section 3 of chapter 333 of the Acts of 1931, upon notice from the trustees that a deficit had occurred, the Department made an investigation of the operations and expenses of the Boston Elevated Railway Company. A report in writing containing the Department's findings and recommendations was transmitted to the Governor and to the members of the Metropolitan Transit Council on November 21, 1934.

Under the provisions of chapter 30 of the Resolves of 1934, an investigation was made by the Department as to the advisability and means of consolidating the Dedham and Hyde Park Gas and Electric Light Company with the Boston Consolidated Gas Company, or effecting such a reorganization of the Dedham and Hyde Park Gas and Electric Light Company that the whole or part of the territory now served by it would be served by the Boston Consolidated Gas Company. A report thereon will be transmitted to the General Court.

On an application made to the Interstate Commerce Commission by the Boston and Albany Railroad Company for permission to abandon that part of its Athol branch north of Bondsville, the Department held a hearing, developed the record and transmitted recommendations to that Commission.

TELEPHONE AND TELEGRAPH

The division during the fiscal year handled 1020 complaints that required specific attention.

On November 30, 1933, there were 794,103 telephone stations and on November 30, 1934, there were 797,713 telephone stations, a net gain of 3,610 stations.

On June 15, 1934, a slight reduction was made in the base rate for residential unlimited private branch exchange trunk lines. Effective August 25, 1934, a reduction in service connection and move charges was made which it is estimated will result in savings to the public of \$25,000 per year. During the past year changes have been made in base rate areas which resulted in decreases in the mileage charge in the areas affected.

MOTOR BUS TRANSPORTATION

There are ninety-three persons and corporations operating motor vehicles for the carriage of passengers for hire under certificates of public convenience and necessity granted by the Department. The total number of such certificates issued by the Department during the year was eighty-one. These were issued to thirty-four different persons and corporations, mainly for extensions of or changes in existing routes.

During the fiscal year, the Department issued 366 bus permits and 3398 drivers' licenses.

MOTOR TRUCKS

By chapter 264 of the Acts of 1934, motor vehicles transporting property for hire in the Commonwealth were placed under the supervision and control of the Department. This law became effective June 7, 1934. During the period ending November 30, 1934, 709 applications for certificates as common carriers and 2313 applications for permits as contract carriers were filed with the Department. The Department held hearings on 626 common carrier applications and 1957 contract carrier applications and during this period issued 405 certificates to common carrier applicants and 786 permits to contract carrier applicants. A total number of 7962 sets of distinguishing plates (3335 common carrier sets and 4627 contract carrier sets) were issued.

GAS, ELECTRIC AND WATER COMPANIES

For the year ending November 30, 1934, 64,593 gas meters were tested and sealed by the Gas, Electric and Water division, compared with 76, 971 in 1933. Of these 64,593 meters, 1216 were meters tested on complaint of either the consumer or the company. In addition 24 wet experimental meters, two 5-foot provers and 13 calorimeter thermometers were calibrated for the use of various companies. Six electric meters were tested on complaints of consumers.

During the year there were made 603 tests of the quality of the gas supplied by the various companies of the State, and 58 violations of the legal standard were found. Complaints numbering 760 were received and recorded, 498 relating to electric service or rates, 230 relating to gas and 32 relating to water.

The following companies or persons engaged in selling water have violated the law by failing to file annual returns with the Department within the limit of time prescribed by law:

Auburn Water Company	Junction Water Company
Churchill, Merritt H.	The Kendall Company
Deerfield Glassine Company	Mill River Water Company
Geo. H. Gilbert Company	Sagamore Beach Development Co.
Glen Farms Water Company	West Warren Water Company

MUNICIPAL LIGHTING PLANTS

The following is a list of the municipal gas and electric plants with earnings which, from reports filed in 1934 for the year 1933, appear to have violated the provisions of the statute requiring them to reduce their rates when the plants have earned a profit in excess of the eight per cent allowed by law:

	Per Cent		Per Cent
Ashburnham	11.21	Norwood	9.81
Braintree	13.14	Peabody	34.32
Hingham	8.12	Shrewsbury	8.78
Littleton	8.20	South Hadley	9.50
Marblehead	9.05	Templeton	8.41
Merrimac	8.55		

The Norwood Municipal Lighting Plant violated the law by failing to file its annual return with the Department within the limit of time prescribed by law.

SMOKE ABATEMENT

By chapter 352 of the Acts of 1934, the division of smoke inspection, which was abolished by chapter 76 of the Acts of 1933, was reestablished. Michael C. O'Neill, of Everett, was appointed director of the division and assumed the duties of the office on September 27, 1934.

During the year ending November 30, 1934, 212,002 observations were made and 714 violations were recorded. No formal hearings were held during the year but conferences were had with owners or operators of plants violating the law and violations as to such plants have been eliminated. One hundred and thirty complaints were received during the fiscal year, a marked decrease in the number received during the preceding year.

CAPITAL STOCK AND BONDS

Twelve applications for approval of issues of stock, bonds or notes have been decided during the year which ended November 30, 1934. The par value of securities to the amount of \$14,566,300 was approved.

The following table shows the securities approved by the Commission for the

several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law.

COMPANY	CAPITAL STOCK APPROVED			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Attleboro Steam and Electric Com- pany	\$100,800	\$25	\$100,800 ¹	\$ —	May 11
Boston & Albany Railroad Company	—	—	—	4,500,000	Mar. 19
Boston Elevated Railway . . .	—	—	—	2,098,000 ²	Feb. 5
Boston Elevated Railway . . .	—	—	—	1,581,000 ²	July 11
Boston Metropolitan District . .	—	—	—	2,098,000 ²	Feb. 21
Boston Metropolitan District . .	—	—	—	1,581,000 ²	July 25
Dedham Water Company	200,000	100	200,000	—	Dec. 8
Greenfield Electric Light and Power Company	686,400	100	686,400 ⁴	—	Dec. 8
Montaup Electric Company . . .	—	—	—	3,000,000 ⁵	Feb. 9
Plymouth & Brockton Street Rail- way Company . . .	—	—	—	130,000 ⁶	May 2
Union Street Railway Company . .	—	—	—	250,000 ⁷	Dec. 22
Wachusett Electric Company . .	412,500	100	412,500 ⁸	—	Feb. 1
Williamstown Gas Company . . .	1,422,600	100	1,422,600 ⁹	—	Feb. 2
Worcester Street Railway Company	110,000	100	110,000 ^{10, 11}	75,000 ¹¹	Dec. 20

¹ To purchase Seekonk Electric Company.

² Negotiable registered or coupon bonds.

³ Approved as to maturity and interest rate only.

⁴ To purchase Western Counties Electric Company.

⁵ Renewal note.

⁶ Income Mortgage bonds, to be registered without coupons.

⁷ Maturity of bonds extended ten years.

⁸ To purchase Clinton Gas Light Company.

⁹ To purchase North Adams Gas Light Company and Adams Gas Light Company.

¹⁰ \$55,000 Common stock; \$55,000 preferred stock.

¹¹ To purchase North End Street Railway Company.

SECURITIES DIVISION

In 1934, a total of 3,359 salesmen and 642 brokers were registered in the Division. The sale in this Commonwealth, during the year 1934, of securities of persons, corporations or other organizations having an aggregate par value of \$199,579,504 has been forbidden by the Securities Division. Since the effective date of the Sale of Securities Act (August 26, 1921) up to November 30, 1934, the proposed sale of securities having an aggregate par value of \$2,912,212, 235.14 has been prohibited. Twenty-seven formal hearings were held by the Commission or by the Director of the division during the past year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. Eleven appeals were made to the Commission from orders of the Securities Division. The registrations of 23 brokers and 166 salesmen were cancelled pursuant to their request. The registrations of 6 brokers and 178 salesmen were cancelled or suspended on the register by orders of the division. In addition to the formal hearings, approximately 1165 complaints against brokers and salesmen were investigated by the Division. Three cases were referred to the Attorney General during the year under section 20 of the Sale of Securities Act.

RECOMMENDATIONS FOR LEGISLATION

1. Under the provisions of the Sale of Securities Act an interested person aggrieved by an order or finding, or refusal or failure to make an order or finding by the Director is entitled, upon filing within twenty days a claim therefor in writing, to a public hearing before a majority of the Commission. It is further provided that at the conclusion of such hearing the Commission shall reconsider and review the subject matter and shall, within twenty days thereof, affirm, modify or rescind the order or finding or refusal complained of. Pending the final action by the Commission the order or finding of the Director is in effect. We believe that justice requires a provision of law by which the taking effect of the order or finding of the Director may be stayed, pending final

action by the Commission, where there is serious doubt, in the judgment of two or more of the commissioners, as to the soundness of the order or finding of the Director.

2. Many persons in this Commonwealth have been engaged in the sale of mineral deeds conveying fractional interests in the minerals or oil under the ground. There has been some conflict of opinion as to whether these mineral deeds are within the purview of the Sale of Securities Act. On April 16, 1934, in the Suffolk Superior Criminal Court it was ruled by the presiding justice that certain mineral deeds did not constitute securities within the meaning of the Sale of Securities Act. We see no reason why these mineral deeds should not be included in the term "security" when oil, gas, and mining leases and certificates of interest in or under the same are all included under the term "security" in the Act. There is little or no distinction between the two and the evil of the indiscriminate sale of the one is the same as in the other.

3. Substantially all the intrastate telephone business is now carried on in the Commonwealth by the New England Telephone and Telegraph Company of New York, organized under the laws of the state of New York. It carries on its business over locations granted to corporations organized under the laws of this Commonwealth. In its issue of stock and other securities it is not subject to the laws of the Commonwealth, as are other public utility companies operating in the Commonwealth, with the exception of companies engaged in the telegraph business.

In a decision of the Department establishing rates of the company, rendered July 30, 1925, this situation was pointed out and the commissioners of the Department then stated: "We have no power in this matter which we can exercise without doing more harm than good to the public, and are of the opinion that this subject merits the attention of the Great and General Court." Subsequently the Governor requested the opinion of the then Attorney General, the Honorable Jay R. Benton, as to the authority of a Massachusetts telephone company to permit a foreign telephone company to use its locations, and what authority a foreign telephone company has to construct and operate equipment on the locations of a domestic company. The opinion of Mr. Benton, rendered on January 7, 1926, as we understand it, is to the effect that a telephone company organized under the laws of the Commonwealth may permit a foreign company to use its locations, at least so long as it does not thereby disable itself from doing business, and that a foreign company may construct and operate equipment on the locations of the domestic company for the purpose of transacting an interstate business, but that the State, in the absence of action by Congress, may prohibit a foreign company from doing an intrastate business. No legislation followed as a result of this opinion or the views expressed by the Department in its decision of July 30, 1925.

In the recent investigation of the telephone rates, as to which a decision was made July 31, 1934, the right and propriety of the New England Telephone and Telegraph Company of New York carrying on an intrastate business over locations not granted to it was again raised. The opinion of the Attorney General of January 7, 1926, not being clear, the Department, on September 21, 1934, requested the opinion of the Attorney General as to whether the carrying on of intrastate business by the New England Telephone and Telegraph Company of New York over locations granted to domestic telephone and telegraph companies is a violation of law within the purview of section 39 of chapter 159 of the General Laws. If the opinion of the Attorney General, in response to our inquiry, is to the effect that it is a violation of law, legislation, we think, will be necessary to give the company time to arrange for the conduct of its business by a corporation organized under the laws of the Commonwealth. If, on the other hand, the opinion is in the negative, we are of the opinion that legislation requiring intrastate telephone business to be carried on by a corporation organized under the laws of the Commonwealth should be enacted, the taking effect of which to be postponed sufficiently to enable those now carrying on the business to adjust their affairs to comply therewith.

We think the legislation should be confined to corporations engaged in the

transmission of intelligence by telephony, as it seems probable, in view of the Act of Congress approved July 24, 1866, which declares that companies accepting its provisions shall have the right to construct, maintain and operate lines of telegraph over and along any of the military or post roads of the United States, that such legislation would be ineffective as to foreign telegraph companies.

Respectfully submitted,

HENRY C. ATTWILL, *Chairman*,
HENRY G. WELLS,
LEONARD F. HARDY,
A. C. WEBBER,
LEO H. LEARY,

Commissioners.

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The Commonwealth of Massachusetts

ANNUAL REPORT

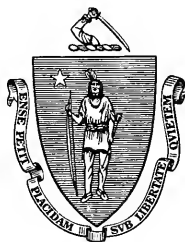
OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1935

COMMISSIONERS' REPORT



DEPARTMENT OF PUBLIC UTILITIES

ANNUAL REPORT

Boston, January 15, 1936.

To the Honorable Senate and House of Representatives in General Court Assembled:

We respectfully submit the sixteenth annual report of the Department of Public Utilities for the fiscal year ended November 30, 1935.

Richard D. Grant, of Boston, was appointed a commissioner to succeed Henry G. Wells, of Haverhill, who resigned November 20, 1935, and assumed the duties of his office December 2, 1935. Mr. Wells' service extended over a period of nearly sixteen years beginning with the establishment of the Department in 1919. His colleagues desire to record their appreciation of the discerning sense of justice and high ideals of public service which he brought to the discharge of his official duties.

The number of corporations, private and municipal, persons, firms, and associations under the jurisdiction of, and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads	24	Electric companies	45
Street railways	24	Water companies	78
Telephone companies	15	Motor bus lines	66
Telegraph companies	3	Municipal lighting plants.....	41
Steamboat companies	3	Manufacturing and other compa-	
Sleeping car companies	1	nies doing an electric business....	4
Express companies	3	Voluntary associations	31
Gas companies	48		
Total			386

During the year the Department held 256 formal hearings and many conferences. In addition, 60 days were devoted to hearings in relation to applications for certificates and permits as common carriers and contract carriers, filed with the Department under the 1934 motor truck law. The following tabulation, showing the number and the character of proceedings instituted, indicates the volume of work which required the Department's attention during the fiscal year:

Petitions and Applications: Railroad, 44; street railway, 28; gas, 23; electric, 25; water, 14; Securities Division (appeals), 6; motor bus, 100; motor truck, 3,943; telephone, 1; miscellaneous, 2; total, 4,186.

Special Permits: Railroad, 227; street railway, 21; gas and electric, 116; telephone and telegraph, 3; motor bus, 16; motor truck, 208; steamboat, 2; water, 1; total, 594.

Complaints: Railroad, 196; street railway, 13; gas, 248; electric, 575; telephone and telegraph, 753; motor bus, 53; motor truck, 390; water, 22; sale of securities, 1,193; smoke abatement, 189; total, 3,632.

Tariff and Rate Schedule Filings: Railroad, freight service, 1,585; passenger service, 437; express, 148; street railway, 31; telephone, 87; telegraph, 3; motor bus, 20; motor truck, 1,321; electric, 341; gas, 85; gas and electric contracts, 134; water, 21; total, 4,213.

The appropriation for the Department and its expenditures for the fiscal year ended November 30, 1935, are given below:

Appropriation	\$317,668.16
Expenditures	303,728.46
Balance	\$ 13,939.70

The receipts of the Department for the same period are shown in the following itemized statement:

Gas, Electric and Water Division:

Fees, gas and meter tests	\$15,463.70	
Fees, electric meter tests	12.00	
Fees, blank forms	479.30	
		\$15,955.00

Public Service Division:

Motor Buses:

Fees, bus permits	\$3,664.00	
Fees, driver's licenses	4,128.00	
		7,792.00

Motor Trucks:

Fees, common carrier certificates	2,880.00	
Fees, contract carrier permits	34,650.00	
Fees, distinguishing plates	22,769.25	
Fees, copies of documents	9.80	
Miscellaneous	3.00	
		60,312.05

Miscellaneous:

Fees, copies of documents		4.25
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Securities Division:

Fees, registration of brokers	\$30,900.00	
Fees, registration of salesmen	15,357.00	
Fees, copies of documents	15.40	
Miscellaneous sales	36.00	
		46,308.40

Rent of land, Brattle square, Cambridge (Cambridge subway).....	4,100.00
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Total	\$134,471.70
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SPECIAL INVESTIGATIONS

Pursuant to the provisions of section 3 of chapter 333 of the Acts of 1931, and upon notice from the Trustees of the Boston Elevated Railway Company of a deficit in the operation of the railway for the nine months ending March 31, 1935, the Department made an investigation of the operations and expenses of the company, and a report, the fourth which the Department has made under that statute, containing the Department's findings and recommendations was transmitted to the Governor and to the members of the Metropolitan Transit Council on October 18, 1935.

Under an order of the Senate, adopted July 2, 1935, the Department was directed to investigate and report on conditions caused by soft coal dust attributable to the manner in which soft coal is stored and handled on various premises in the vicinity of that part of South Boston between City Point and N street park, so-called. A public hearing was held by the Department and an investigation of the conditions referred to was made by the Division of Smoke Inspection. A report on the matter has been transmitted to the Senate.

Under the provisions of chapter 58 of the Resolves of 1935 a commissioner of the Department was designated as a member of the Special Commission, established by said chapter, to investigate and study the sliding scale method of rates and its practicability for use by public utility corporations engaged in the business of the distribution of gas and electricity within the Commonwealth.

Following the filing with the Department of schedules of rates by common carriers engaged in the transportation of property for hire, the Department began an investigation of the matter of establishing minimum rates and charges of contract carriers in competition with common carriers, and under the provisions of section 6 of the motor truck law has prescribed minimum rates and charges for the transportation of property by contract carriers between designated communities in the Commonwealth. The investigation is being continued and minimum rates and charges will be established from time to time until all important points in the state have been covered.

RAILROADS AND STREET RAILWAYS

Under a vote of the Commission, adopted May 27, 1935, the Division of Railway and Bus Utilities was consolidated with the Engineering Division and the title of the Engineering Division was changed to Engineering and Railway Inspection Division, under the direction of the Chief Engineer. During the fiscal year the Division made 13,954 inspections of railroad rolling stock, including passenger and freight cars and locomotives; 4,909 inspections of street railway cars; 2,205 inspections of railroad and railway stations; 2,246 inspections of railroad and street railway bridges, and 6,592 inspections of railroad signals, interlocking and crossing signals. In addition, switches and derails, foot blocking, bridge guards and crossing signs were inspected. Defective conditions were called to the attention of the proper officials of the various companies. The Division investigated 128 accidents which occurred on railroads and 155 accidents which occurred on street railways, and 209 complaints filed with the Department.

TELEPHONE AND TELEGRAPH

Joseph C. White, of Boston, was appointed Director of the Telephone and Telegraph Division of the Department and assumed the duties of his office January 7, 1935.

There were 753 complaints made to the division during the fiscal year, which required special attention.

On November 30, 1935, there were 806,916 telephone stations in Massachusetts, a net gain of 9,203 stations over the preceding year.

Reductions in several items of the New England Telephone and Telegraph Company's rate schedule have been effected during the year.

On June 1, 1935, the charge for reestablishment of service interrupted for non-payment of bills was reduced from \$2.00 to \$1.00.

Effective June 1, 1935, the rate of 15 cents per month for a hand set does not apply when the subscriber has paid the monthly charge for a period of 36 months.

Revised toll rate schedules were filed effective June 1, 1935. They advanced from 8:30 P. M. to 7:00 P. M., the time at which night rates on station-to-station calls become effective. This change eliminated the so-called "evening rate period" formerly in effect from 7:00 P. M. to 8:30 P. M. Within the territory comprising Maine, New Hampshire, Vermont, Massachusetts and Rhode Island, night rates are now lower than day rates where the latter are more than twenty-five cents. Outside this area, the corresponding figure is thirty-five cents. The new schedule has resulted in giving customers the advantage of low night rates on such calls made during the evening hours after 7 o'clock, and has lessened, to some extent, the traffic congestion which sometimes happened shortly after 8.30 p. m., as customers waited for that time to get the lowest rate.

Further changes in base rate areas were worked out between the Director of the division and the telephone officials. These changes relieved many subscribers from payment of any mileage charge and substantially reduced the rate of others.

MOTOR BUS TRANSPORTATION

There are ninety-two persons, associations and corporations operating motor vehicles for the carriage of passengers for hire under certificates of public convenience and necessity granted by the Department. The total number of certificates issued by the Department during the fiscal year was eighty-five, mainly for extensions of or changes in existing routes.

During the year, the Department issued 366 bus permits and 4,128 driver's licenses. The Engineering and Railway Inspection Division made 6,870 inspections of buses and 1,049 inspections of highway bridges over which buses under the Department's jurisdiction operate. The division investigated 84 accidents involving motor buses and 53 complaints received during the year.

MOTOR TRUCK TRANSPORTATION

Chapter 405 of the Acts of 1935 provided for the establishment of a Commercial Motor Vehicle Division in the Department. The division, under the charge of a director, is authorized to perform such functions in relation to the administration and enforcement of the motor bus and motor truck laws (chapters 159A and 159B of the General Laws) imposed upon the Department by said laws as the Commission may from time to time determine. Frank E. Riley, of Swampscott, was appointed Director, and assumed the duties of his office September 5, 1935.

By section 8 of the 1934 truck law, a certificate as a common carrier or a permit as a contract carrier is required to be granted as a matter of right to an applicant who was rendering such service on February 1, 1934, provided application therefor was made to the Department within sixty days of the effective date of said section. By the provisions of chapter 24 of the Acts of 1935, a further period of sixty days was authorized whereby a person applying for a certificate or permit was entitled to all the benefits of section 8 of the 1934 law to which he would have been entitled if he had made such an application within sixty days of the effective date thereof, whether or not such an application had previously been made by him or such a certificate or permit previously granted to him. The passage of this act enabled many carriers, who had filed no application with the Department or whose application had been filed subsequent to the effective date of section 8 of the 1934 motor truck law, to secure the benefits provided in said section.

During the fiscal year 288 applications for certificates as common carriers and 3,465 applications for permits as contract carriers were filed with the Department, making a total of 997 common carrier applications and 5,778 contract carrier applications filed with the Department since the passage of the motor truck law in 1934.

During the fiscal year hearings were held on 300 common carrier applications and 3,945 contract carrier applications, and 503 common carrier certificates and 4,840 contract carrier permits were granted. These figures include hearings and certificates and permits granted on some applications filed during the preceding year and not acted upon in that year. A total of 22,906 sets of distinguishing plates (6,076 common carrier sets and 16,830 contract carrier sets) were issued.

An investigation has been made by the Division of 390 complaints filed during the year, and the certificates of three common carriers and four contract carriers have been revoked.

During the year the Department, after a hearing, prescribed and promulgated rules and regulations relating to motor vehicles transporting property for hire. Under the provision of section 6 of the motor truck law the Department prescribed the minimum rates and charges of contract carriers in competition with common carriers to be collected by such contract carriers between certain communities in the Commonwealth and the work is being continued so as to cover all important points in the state.

GAS, ELECTRIC AND WATER COMPANIES

For the year ending November 30, 1935, 60,262 gas meters were tested and sealed by the Gas, Electric and Water division, compared with 64,593 in 1934. Of these 60,262 meters, 1210 were meters tested on complaint of either the consumer or of the company. The average error of these 1210 complaint meters (excluding those which did not register) was 1.63 per cent fast as compared to 1.77 per cent fast in 1934. In addition, 7 wet experimental meters, five 5-foot provers and 16 calorimeter thermometers were calibrated for the use of various companies. Three electric meters were tested on complaint of consumers.

During the year there were made 603 tests of the quality of the gas supplied by the various companies of the state, and 38 violations of the legal standard were found. Complaints numbering 845 were received and recorded, 575 relating to electric service or rates, 248 relating to gas, and 22 relating to water.

There were several investigations made of customer's appliances and their use.

New calorimeter testing stations were installed in Taunton and Gloucester.

The following companies or persons engaged in selling water have violated the law by failing to file annual returns with the Department within the limit of time prescribed by law:

Deerfield Glassine Company	Savery Avenue Water Supply
George H. Gilbert Manufacturing Company	Southfield Water Trust
The Kendall Company	Whitin Machine Works
Mill River Water Company	

MUNICIPAL LIGHTING PLANTS

The following is a list of the municipal gas and electric plants with earnings which, from reports filed in 1935 for the year 1934, appear to have violated the provisions of the statute requiring them to reduce their rates when the plants have earned a profit in excess of eight per cent allowed by law:

<i>Municipality</i>	<i>Per Cent</i>	<i>Municipality</i>	<i>Per Cent</i>
Ashburnham	12.87	Peabody	30.38
Groveland	8.82	South Hadley	10.30
Norwood	9.94	Sterling	9.92

The Taunton Municipal Lighting Plant violated the law by failing to file its annual return with the Department within the limit of time prescribed by law.

It also appears that the following towns have violated the statute which provides for the inclusion in the annual appropriations and in the tax levy, not less than the estimated cost of the gas and electricity to be used by the town for street lighting:

	<i>Estimated</i>	<i>Paid</i>
Georgetown	\$ 2,371.38	\$ 900.00
Peabody	11,141.76	2,140.00

SMOKE ABATEMENT

Following a Senate order for an investigation by the Department of coal dust conditions in South Boston, the Division made an exhaustive study of conditions in this area, report of which was made to the Department.

Following complaints in Back Bay a survey was made of a typical section to determine the nature of the heating plants. The Division found many potential violators of the smoke law, operating under conditions that would make it very difficult to avoid heavy smoke. Many of the firemen in this district are janitors of buildings and not thoroughly familiar with the problems of combustion.

During the year ending November 30, 1935, there were 280,942 observations made on stationary, locomotive and marine stacks. Of these 1314 were violations. Eighteen formal hearings were held and five formal orders, (which are necessary before court action can be taken) were issued. One hundred conferences were held with owners or operators of plants and the inspectors made

1295 plant calls. One hundred and eighty-nine complaints were received during the fiscal year, an increase of 59 over the number received during the preceding year.

CAPITAL STOCK AND BONDS

Ten applications for approval of issues of stock, bonds or notes have been decided during the year which ended November 30, 1935. The par value of securities to the amount of \$83,777,650 was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law.

COMPANY	CAPITAL STOCK APPROVED			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Barnstable Water Company . .				\$ 115,000	Oct. 11
Boston & Albany Railroad Co.				9,000,000 ¹	Apr. 18
Boston Elevated Railway Co.				8,500,000 ²	Feb. 21
Boston Metropolitan District .				8,500,000 ³	Feb. 21
Cape and Vineyard Electric Co.				750,000	July 19
Chatham Water Company . .				125,000	June 8
Dedham Water Company . .				400,000 ¹	Feb. 20
The Edison Electric Illuminat- ing Company of Boston . .				53,000,000	July 3
The Edison Electric Illuminat- ing Company of Boston . .	\$8,228,900	\$150	\$12,343,350		Nov. 26
Edison Electric Illuminating Company of Brockton . .	708,750 ⁴	25	708,750		May 24
Lowell Gas Light Company . .				950,000 ¹	Oct. 26
Worcester Gas Light Company				2,000,000	July 23

¹ Refunding bonds.

² Negotiable registered or coupon bonds.

³ Approved as to maturity and interest rate only.

⁴ To purchase The Electric Light and Power Company of Abington and Rockland.

SECURITIES DIVISION

During the year, 617 brokers and 3,069 salesmen were registered in the Division. The sale in the Commonwealth, in that period, of securities of persons, corporations or other organizations having an aggregate par value of \$522,800,203.12 has been forbidden by the Securities Division. Since the effective date of the Sale of Securities Act (August 26, 1921), up to November 30, 1935, the proposed sale of securities having an aggregate par value of \$3,435,012,438.26 has been prohibited. Forty-four formal hearings were held by the Director of the Division during the year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. Seven appeals from the orders and findings of the Division were filed with the Commission. The registration of 12 brokers and 99 salesmen were cancelled pursuant to their request. The registration of 12 brokers and 4 salesmen were cancelled by orders of the Division after a hearing. In addition, approximately 1,193 complaints against brokers and salesmen were investigated by the Division. Three cases were referred to the Attorney General during the year under the provisions of section 20 of the Sale of Securities Act.

RECOMMENDATIONS FOR LEGISLATION

Carriers of Property by Motor Vehicle:

Under the provisions of section 7 of chapter 159B of the General Laws common carriers and contract carriers of property for hire by motor vehicle are required to have attached to each of their motor vehicles used in the carriage of property a set of plates issued by the Department. The sole purpose of this provision, we think, is to identify the vehicle with the carrier operating it. When carriers are operating both as common carriers and contract carriers the carrier is required to attach to his vehicle four plates, and if he operates

in other states the laws of those states require additional plates. All these plates lead to confusion in identifying the plates issued by the Registrar of Motor Vehicles, which are the more important and which should be readily ascertainable by those having charge of the safety of the highways. We see no necessity for more than one plate being issued for each vehicle used in the business of a common carrier and one plate for each vehicle used in the business of a contract carrier and we recommend that the section be amended to that end.

Under the provisions of said section 7 a certificate or permit may be assigned and transferred with the approval and consent of the Department. Situations have arisen where the holder of a certificate has desired to assign a part thereof and where there appeared to be no sound reason why it should not have been permitted. We think the section should be amended to permit of the transfer of a certificate or permit in whole or in part.

The transfer of a certificate or permit, requiring as it does the approval of the Department, imposes upon it a considerable amount of investigation and clerical work. As a consequence, we are of the opinion that a fee should be imposed for the approval of such transfers, limited in the case of the approval of the transfer of a contract carrier permit to one dollar and to five dollars in the case of the approval of the transfer of a common carrier certificate, and we so recommend.

Under the provisions of said section 7 the Department may revoke any certificate or permit for wilful and repeated violations of the provisions of said chapter 159B. Situations often arise where the revocation of a part of the certificate or permit would meet the ends of justice. We recommend that the section be amended so that the Department may, in such cases, revoke a part of the certificate or permit, rather than the whole.

Commercial Motor Vehicle Division:

By the passage of chapter 405 of the Acts of 1935, chapter 25 of the General Laws was amended by the insertion of section 12F which created in the Department a Commercial Motor Vehicle Division under the charge of a Director. By the provisions of section 12F the division, under the general supervision and control of the Commission of the Department, is to perform such functions in relation to the administration and enforcement of chapters 159A and 159B of the General Laws imposed upon the Department by said chapters as the Commission may from time to time determine. In order to perform properly the powers of the Department delegated to him, the Director should have the authority to summon witnesses, administer oaths and take testimony, which was not provided for in the passage of said chapter 405.

Sale of Securities Act:

We renew our recommendation of last year, for the reasons then expressed, that the word "security" should be defined to include mineral deeds conveying fractional interest in minerals or oils. Many persons have been engaged in the Commonwealth in the sale of such deeds and we see no reason why such mineral deeds should not be included in the term "security", when oil, gas and mining leases and certificates of interest in or under the same are so included.

We renew our recommendation of last year that pending the final action by the Commission where a claim is made by an aggrieved party to a public hearing before a majority of the Commission, the taking effect of the order or finding of the Director may be stayed pending final action by the Commission where there is serious doubt, in the judgment of two or more commissioners, as to the soundness of the order or finding of the Director.

Respectfully submitted,

HENRY C. ATTWILL, *Chairman*,
LEONARD F. HARDY,
A. C. WEBBER,
LEO H. LEARY,
RICHARD D. GRANT,
Commissioners.

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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1936

COMMISSIONERS' REPORT



DEPARTMENT OF PUBLIC UTILITIES ANNUAL REPORT

Boston, January 20, 1937.

To the Honorable Senate and House of Representatives in General Court Assembled:

We respectfully submit the seventeenth annual report of the Department of Public Utilities for the fiscal year ended November 30, 1936.

On May 6, 1936, Commissioner A. C. Webber resigned to accept appointment to the State Board of Tax Appeals. Commissioner Webber had served as a member of the Commission since December 18, 1932, having been appointed by the then Governor, Joseph B. Ely.*

Professor John J. Murray of Milton was appointed Commissioner to succeed Mr. Webber, was designated as Chairman by the Governor and assumed the duties of his office on May 7, 1936.

On November 20, 1936, it was voted that the following Memorial be spread upon the records of the Department:

In Memoriam

On November 1, 1936, Henry C. Attwill, Commissioner of the Department of Public Utilities, was taken by death. Mr. Attwill had served continuously since 1919, when he resigned as Attorney General of the Commonwealth to accept appointment by Governor Calvin Coolidge to the then Public Service Commission. He was chairman of the Department, as constituted under the reorganization of 1919, for a period of sixteen years, and during his incumbency gained a reputation for sound and conservative administration that was nation-wide.

Combining the courage of independence, rugged integrity, and fairness, with an alert and deeply reasoning mind, Mr. Attwill was an executive of a kind rarely found in the public service. With the appreciation born of intimate association, we deeply regret his loss.

The number of corporations, private and municipal, persons, firms, and associations under the jurisdiction of and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads	24	Electric companies	44
Street railways	22	Water companies	79
Telephone companies	14	Motor bus lines	62
Telegraph companies	3	Municipal lighting plants	42
Steamboat companies	2	Manufacturing and other companies doing an electric business	4
Sleeping car companies	1	Voluntary associations	30
Express companies	3		
Gas companies	46		
Total	376		

During the year the Commissioners of the Department held 499 formal hearings and many conferences. The following tabulation, showing the number and character of proceedings instituted, indicates the volume of work which required the Commissioners' attention during the fiscal year:

Petitions and Applications: Railroad, 69; street railway, 31; gas, 21; electric, 63; water, 12; Securities Division (appeals), 10; motor bus, 97; motor truck, 41; (appeals) 6; trackless trolleys, 7; steamboat, 1; miscellaneous, 12; total, 370.

Special Permits and Licenses: Railroad, 176; street railway, 38; gas and electric, 50; telephone and telegraph, 10; motor bus, 31; motor truck, 98; miscellaneous, 4; total, 407.

Complaints: Railroad, 177; street railway, 17; gas, 177; electric, 477; water, 22; telephone and telegraph, 494; motor bus, 76; motor truck, 447; sale of securities, 1,200; smoke abatement, 141; total, 3,228.

Tariff and Rate Schedule Filings: Railroad, freight service, 1153; passenger service, 363; express, 150; street railway, 45; telephone, 37; telegraph, 14; motor bus, 42; motor truck, 739; electricity, 247; gas, 61; water, 16; gas and electric contracts, 191; total, 3,058.

*Since the end of the fiscal year, covered by this report, Mr. Webber has been again appointed a Commissioner of the Department and designated as Chairman.

The appropriation for the Department and its expenditures for the fiscal year ended November 30, 1936, are given below:

Appropriations	\$368,370.79
Expenditures	361,956.98
Balance	\$ 6,413.81

The receipts of the Department for the same period are shown in the following itemized statement:

<i>Gas, Electric and Water Division:</i>	
Fees, gas and meter tests	\$20,740.95
Fees, electric meter tests	35.00
Fees, blank forms and maps	717.50
	\$21,493.45
<i>Public Service Division:</i>	
Motor Buses:	
Fees, bus permits	\$ 3,974.00
Fees, driver's licenses	3,318.00
	7,292.00
Motor Trucks:	
Fees, common carrier certificates	\$ 300.00
Fees, contract carrier permits	37,425.00
Fees, distinguishing plates	27,783.00
Fees, copies of documents	2,318.85
	67,826.85
Miscellaneous:	
Fees, copies of documents	\$ 3.00
Fees, blank forms	8.10
	11.10
<i>Securities Division:</i>	
Fees, registration of brokers	\$32,150.00
Fees, registration of salesmen	16,505.00
Fees, copies of documents	15.40
Miscellaneous sales	23.00
	48,693.40
Rent of land, Brattle Sq., Cambridge (Cambridge subway)....	4,100.00
Reimbursement for damage to state car	43.50
Postage .....	.51
Total	\$149,460.81

SPECIAL INVESTIGATIONS

Pursuant to the provisions of section 3 of chapter 333 of the Acts of 1931, and upon notice from the Trustees of the Boston Elevated Railway Company of a deficit in the operation of the railway for the nine months ending March 31, 1936, the Department made an investigation of the operations and expenses of the company, and a report, containing the Department's findings and recommendations will be transmitted to the Governor and to the members of the Metropolitan Transit Council. This is the fifth report which the Department has made.

RAILROADS AND STREET RAILWAYS

It was voted on July 20, 1936, that the position of Director of the Railway and Bus Utilities be re-established and that William H. Kirley be appointed Director of the Division of Railway and Bus Utilities.

During the fiscal year the Division made 14,160 inspections of railroad rolling stock, including locomotives, passenger and freight cars, 4705 inspections of street railway cars; 2175 inspections of railroad and railway stations; 2201 inspections of railroad and street railway bridges; 5195 inspections of railroad signals; 149 inspections of railroad interlockings; 189 inspections of railroad-crossing signals. In addition, switches and derails, foot blocking, bridge guards and crossing signs were inspected. Defective conditions were called to the attention of the proper officials of the companies and corrections made. The Division investigated 135 accidents on railroads, 161 accidents on street railways, and 194 complaints relating to railroads and railways filed with the Department.

Section 89 of Chapter 363 of the Acts of 1936, provides that the Department, upon the petition of a railroad corporation, or of a railway company, or of the Boston Terminal Company, or of a common carrier of passengers by water for hire having a usual place of receiving or discharging passengers within the Com-

monwealth, may from time to time appoint as police officers as many of the persons designated in said petition, and being citizens of the United States, as it may deem proper for the purposes and with the powers set forth in said Chapter. In accordance therewith the Department appointed 317 railroad police officers, 452 railway police officers, and 171 steamship police officers. Licenses were issued to the said appointees and a record of all such appointments is kept in the Department.

TELEPHONE AND TELEGRAPH

On November 30, 1936, there were 836,522 telephone stations in Massachusetts, a net gain of 29,606 stations over the preceding year.

On January 15, 1936, station-to-station toll rates for Sundays and person-to-person toll rates for nights and Sundays were reduced. The change in the schedule established new rates for Sunday service, the rates for station-to-station service being the same as the present night rates. It also established night rates for person-to-person calls between 7:00 P. M. and 4:30 A. M. Similar rates also apply for Sunday service.

On April 15, 1936, provision was made for a rate for auxiliary line main station service at a monthly base rate of \$2.75 net, these lines to be available as auxiliaries to one-party line measured service main stations. All messages from auxiliary lines are associated with the one-party line measured service main station. This particular service is helpful to the small business subscriber who has considerable inward use of telephone service and not a very heavy outward usage.

On September 1, 1936, a reduction was made in overtime rates on person-to-person message toll service after the first three minutes overtime.

Mileage charges were reduced by base rate area extensions in the Buzzards Bay, Holyoke, Leominster, Lowell, Northampton, Sagamore, Shrewsbury and Springfield exchanges. In Hyannis a zone basis of mileage measurement was established which substantially reduced the rate of subscribers in this exchange.

Season service regulations were removed from the Salem Willows section of the Salem exchange and from the Shrewsbury section of the Worcester exchange.

There were 494 complaints during the fiscal year, which required special surveys. The base rate area extensions materially reduced the number of complaints with reference to mileage charges and the other reductions tended to eliminate dissatisfaction among subscribers, who benefited by these changes.

MOTOR VEHICLE TRANSPORTATION

There are 83 persons, associations and corporations operating motor vehicles for carriage of passengers for hire under certificates of public convenience and necessity granted by the Department.

The total number of certificates issued by the Department during the fiscal year was 97, mainly for extensions of or changes in existing routes.

During the year the Department issued 400 bus permits and 3314 drivers' licenses. The Division of Railway and Bus Utilities made 7591 inspections of buses, and 1060 inspections of highway bridges over which motor vehicles under the Department's jurisdiction operate.

Accidents, 110 in number, and 76 complaints were investigated during the year by the division.

COMMERCIAL MOTOR VEHICLE DIVISION

During the fiscal year 30 common carrier applications and 2504 contract carrier applications were filed. This number of contract carrier applications included 247 amendments to original permits. There were 1236 interstate contract carrier applications filed. There are now 915 common carriers, 7,648 contract carriers and 2,035 interstate contract carriers registered with this Division since the Act became effective in June, 1934.

Hearings were held on 2437 contract carrier applications. There were 2173 contract carrier permits granted.

Section 7 of Chapter 264 of the Acts of 1934 as amended, provides that distinguishing plates shall be displayed on all vehicles transporting property for hire. During this fiscal year there were 5292 common carrier plates issued, and

17,385 contract carrier plates issued and 5,332 interstate contract carrier plates issued.

On October 1, 1936, there were 24 investigator-examiners appointed as provided by Chapter 477 of the Acts of 1935 to enforce the provisions of Chapter 264 of the Acts of 1934 and the rules and regulations of the Department made under authority thereof. There were 6486 inspections made and 1476 special investigations relative to violations of the Act. There were 447 complaints filed relative to unpaid C. O. D. shipments and unfair competition. On these complaints, 47 hearings were held, 1 common carrier certificate was revoked, 10 contract carrier permits were revoked and two were suspended.

The contract carrier rates established August 1, 1935 and amended November 20, 1935, were suspended by successive orders from June 1, 1936, until February 1, 1937. The rules and regulations adopted February 12, 1935 were amended March 6, 1936 to cover insurance requirements for some contract carriers. Transfers of common carrier certificates in this period total 12; transfers of contract carrier permits total 278. During the year 2835 plates were transferred upon authority and consent of the Department, for which there is no required fee.

In January, 1936, when the Interstate Commerce Commission Act became effective, applicants applied for certification by this Department as proof of operation in Massachusetts. A fee of \$1 was charged for each certified copy of a common carrier certificate and a fee of 50 cents for each certified copy of a contract carrier permit. There were 1947 copies made of contract carrier permits and 1286 copies of common carrier certificates.

The Interstate Commerce Commission also requires that each applicant under the Motor Carrier Act shall file with this Commission a copy of his I. C. C. application and we have on file in this Department approximately 5600 I. C. C. applications. These have been filed with this Department.

GAS, ELECTRIC AND WATER COMPANIES

For the year ending November 30, 1936, 80,867 gas meters were tested by the Gas, Electric and Water Division, and those found correct, were badged and sealed in accordance with the statute. This compares with the 60,262 gas meters of the previous year. Of the 80,867 meters, 1249 were meters tested on complaint of either the consumer or of the company. The average error (excluding four meters which did not register) was 1.76 per cent fast as compared to 1.63 per cent fast in 1935. In addition, nine experimental wet meters, eight five-foot meter provers, and 11 calorimeter thermometers were calibrated for the use of various companies. Seven electric meters were tested on complaint of consumers.

During the year 550 tests of the quality of gas supplied by the various companies were made and 42 violations of the legal standard were found and the offending companies notified. Six hundred and ninety-nine complaints of service, high bills, etc., were carefully investigated. Of these, 477 had to do with the use of electricity, 177 of gas and 45 of water. In addition, several investigations were made of complaints relative to customers' gas or electric appliances.

In conjunction with the Engineering Division, numerous investigations of the cost of extensions of gas, electric and water service were made and arrangements were completed for many such extensions without formal order of the Commission.

All electric company and municipal lighting plant reports were filed on time. The only gas company which failed to file its annual return within the time limit prescribed by law was the Lowell Gas Light Company.

We herewith set forth a list of the municipal plants with percentage earnings, which, from reports filed in 1936 for the year 1935, appear to have violated the

MUNICIPAL LIGHTING PLANTS

provisions of the statute requiring them to reduce their rates when the plants have earned a profit in excess of the 8 per cent allowed by law:

Ashburnham	9.04%
Norwood	10.84%
Peabody	32.97%

It also appears that the following towns have violated that part of the statute which provides that the town shall include in its annual appropriations and in the tax levy not less than the estimated cost of the gas and electricity to be used by the town. Records of street lighting only are available and these figures are as follows:

Town	Correct Amount as per Statute	Town Paid Only
Ashburnham	\$ 1,297.03	\$ 650.00
Georgetown	2,274.07	900.00
Groveland	3,004.32	1,800.00
North Attleborough	10,481.90	5,000.00
Peabody	10,758.77	2,070.00
Wellesley	18,056.27	15,100.00

ENGINEERING DIVISION

In accordance with Chapter 333 of the Acts of 1931, the Division investigated and made a special report to the Commissioners on the savings that might be effected in operating expenses on the Boston Elevated Railway.

Plans and specifications for the elimination of 16 grade crossings by the Department of Public Works were examined and a report made to this Department, in accordance with the provisions of section 70 of chapter 159 of the General Laws, as amended by section 1, chapter 357 of the Acts of 1934.

Investigations and reports in accordance with a vote of the Department were made on the capital expenditures and retirements of the following companies:

Boston Elevated Railway	Boston Terminal Company
Huntington Electric Light Company	Agawam Electric Company
United Electric Company	Hingham Water Company
Amherst Water Company	Western Mass. Electric Company

Special investigations and studies were made of the rates of the following companies:

Hingham Water Company	Millbury Water Company
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A physical valuation was made of the Blackstone Water Company in connection with a stock issue.

Investigations and reports were made also on 88 proposed bus routes.

During the year, the Division made special inspections of 143 bridges carrying railroads, street railways or buses. Restrictions were recommended for 16 of these bridges and the discontinuance of the operation of buses over 3 bridges. A total of 19 bridges were found to be not in satisfactory condition.

After the floods of last March, a complete inspection of the gas and electric plants affected was made jointly with the Director of Gas, Electric and Water Utility Division.

The Division acted with and assisted the Director of the Gas, Electric and Water Utility Division in the investigation of 51 complaints and other matters relating thereto.

During the year, studies were made relative to the operation of trackless trolleys and the construction of overhead feeders.

The Division assisted the Attorney-General before the Superior Court in Worcester on petitions of the New York, New Haven and Hartford Railroad for reimbursement for expenditures made on account of proposed elimination of grade crossings in Leominster and Southboro.

A study and investigation of the Chelsea Division of the Eastern Massachusetts Street Railway Company, which was acquired by the Boston Elevated Railway was completed during the year.

SMOKE ABATEMENT

During the year ending November 30, 1936, 313,973 observations were made and 1274 violations were noted. Recommendations of the Division were generally followed but 18 formal hearings were necessarily required and 10 formal orders were issued. One hundred and forty-one complaints were received and investigated. This total was 48 less than that of the preceding year.

CAPITAL STOCK AND BONDS

Nine applications for approval of issues of stock, bonds or notes of public utilities were decided during the year which ended November 30, 1936. The par value of securities to the amount of \$15,220,000 was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	Capital Stock Approved			Bonds Approved at Par	Date
	Amount at par	Issue Price	Value at Issue Price		
Amherst Water Company . . .	—	—	—	\$ 150,000	July 20
Blackstone Water Company . .	\$ 1,500	\$ 10.00	\$ 1,500	—	July 30
Huntington Electric Light Co.	3,500	65.00	9,100	—	Feb. 26
New England Power Company . .	—	—	—	10,067,000	Oct. 16
Pittsfield Electric Company . .	416,000	125.00	520,000	—	Oct. 14
Southeastern Massachusetts Power and Electric Co. ¹ . . .	632,000	32.75	827,920	—	Dec. 23
Turners Falls Power and Elec- tric Company	—	—	—	3,000,000	Nov. 6
United Electric Light Company .	550,000	65.00	1,430,000	—	July 6
Western Massachusetts Electric Company	400,000	125.00	500,000	—	July 6

¹Issued to purchase property of the Plymouth Electric Light Company.

SECURITIES DIVISION

During the year, 644 brokers and 3291 salesmen were registered in the Division. The sale in the Commonwealth, in that period, of securities having an aggregate par value of \$54,446,351 has been forbidden by the Securities Division. Since the effective date of the Sale of Securities Act (August 26, 1921), up to November 30, 1936, the proposed sale of securities having an aggregate par value of more than \$3,000,000,000 has been prohibited. Thirty-nine formal hearings were held by the Director of the Division during the year on complaints arising in connection with sales of securities or the manner in which brokers or salesmen conducted their business. Six appeals from the orders and findings of the Division were filed with the Commission. The registration of 13 brokers and 61 salesmen were cancelled pursuant to their request. The registration of 4 brokers and 2 salesmen were cancelled by orders of the Division after a hearing. In addition, approximately 1200 complaints against brokers and salesmen were investigated by the Division. Four cases were referred to the Attorney General during the year under the provisions of section 20 of the Sale of Securities Act.

RECOMMENDATIONS FOR LEGISLATION

Compilation of Public Utility Laws:

Section 8 of chapter 25 of the General Laws authorizes the Department to make compilation with annotations of the statutes relating to common carriers. The statute conferring this authority upon a predecessor of this Department, the Public Service Commission, has remained without substantial change since its original enactment in 1913, notwithstanding the fact that the Department's jurisdiction over public utilities is not limited to common carriers. The issue by the Department of a compilation of the statutes of the Commonwealth relating not only to common carriers but to all public utilities under its jurisdiction, including gas, electric and water companies and municipal lighting plants would, we believe, be in the public interest. Moreover, we believe that if such a compilation were available, a sufficient number of copies could readily be sold to cover the cost of its preparation and publication.

Regulation of Rates for Gas and Electricity:

The so-called sliding scale arrangement of rates for electric and gas companies has enjoyed very considerable success in Washington, D. C., since 1924. We see no reason why similar arrangements with our Massachusetts gas and electric companies should not produce satisfactory results. Under our present laws, even if the Department could enter into any arrangements with a company, or companies, for any period of time, there is nothing to prevent the customers, or others, from filing at any time petitions resulting in rate cases. Our proposed bill provides for an opportunity for the Commonwealth and a company,

or companies, to agree upon reasonable return, and to arrange for specified periods of time upon rates and upon the distribution of excess earnings.

A sliding scale arrangement for rates provides that earnings above an agreed upon fair rate of return are shared between the company and the consumers. The consumers' share in any excess earnings is realized by reduction in the rates charged in the succeeding period. Our bill is purely a permissive measure.

Periodic Replacement of Gas Meters:

Section 2 of chapter 164 of the General Laws, Tercenary Edition, provides that the terms "corporation", "gas company" and "electric company" include municipal corporations which own or may acquire municipal lighting plants in construing certain sections of the chapter. Section 115 of said chapter is not included in the sections as being applicable to municipal plants. Chapter 164 of the General Laws was amended by inserting after section 115, section 115A which provides for the periodic replacement of meters for measuring gas. The words "gas company" as used in section 115A do not apply to municipal lighting plants. At the present time four municipal lighting plants are engaged in the distribution of gas, in Holyoke, Westfield, Wakefield and Middleborough. It would seem, therefore, that the benefits of such legislation should be enjoyed likewise by the inhabitants of these communities.

Sale of Securities Act:

The Federal Security Act of 1933 according to its title is an act to provide full and fair disclosure of the character of securities sold in interstate and foreign commerce and through the mails, and to prevent frauds in the sale thereof, and for other purposes. There may be provisions of this statute which might be incorporated in the Sale of Securities Act and we are of the opinion that the matter is of such public interest and importance as to warrant an investigation and consideration by a recess commission. There are also some additions and amendments to chapter 290 of the Acts of 1932, being an act in amendment and revision of the Sale of Securities Act as amended, which we believe should also be investigated and considered, to the end that legislation may be recommended and enacted which would be of substantial benefit to the public.

We renew our recommendation of the last two years, that the word "security" should be defined to include mineral deeds conveying fractional interest in minerals or oils, and we repeat what was said in the Department's recommendations for legislation in 1934, as follows:

"Many persons in this Commonwealth have been engaged in the sale of mineral deeds conveying fractional interests in the minerals or oil under the ground. There has been some conflict of opinion as to whether these mineral deeds are within the purview of the Sale of Securities Act. On April 16, 1934, in the Suffolk Superior Criminal Court it was ruled by the presiding justice that certain mineral deeds did not constitute securities within the meaning of the Sale of Securities Act. We see no reason why these mineral deeds should not be included in the term 'security' when oil, gas, and mining leases are certificates of interest in or under the same are all included under the term 'security' in the Act. There is little or no distinction between the two and the evil of the indiscriminate sale of the one is the same as in the other."

Respectfully submitted,

A. C. WEBBER, *Chairman*,
LEONARD F. HARDY,
LEO H. LEARY,
RICHARD D. GRANT,
JOHN J. CURLEY,
Commissioners.

MASS.
DOCS.
COLL.

The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

DEPARTMENT OF PUBLIC UTILITIES

FOR THE

YEAR ENDED NOVEMBER 30, 1924

PART I



PUBLICATION OF THIS DOCUMENT

APPROVED BY THE

COMMISSION ON ADMINISTRATION AND FINANCE

COMMISSIONERS' REPORT

The work of the Department has been carried on during the year covered by this report with an increase in the personnel of the office force of two stenographers. Such increase became necessary by reason of the amendments to the "Sale of Securities Act" in 1924, to which more extended reference is made hereafter. Said amendments went into effect on September 2, 1924, and on October 1, 1924, and it is probable that further additions to the office force must be made if the work is to be carried on efficiently. In fact, at least one additional inspector in the Sale of Securities Division should be employed at once. The Commission has taken up with the Department of Administration and Finance the appointment of such an additional inspector, and it is hoped that the appointment of a suitable person will soon be made possible.

Mr. Justin W. Lester, former chief accountant of the Department, resigned his position as of December 31, 1923. The Commission accepted his resignation with regret, realizing that his services were of great value to the Commonwealth and that it would be a difficult task to obtain a worthy successor. The position has not yet been filled. The Commission has considered with care many applications and it is hoped that an appointment will be made in the near future.

During the year ended November 30, 1924, the Commission held 428 formal hearings and many informal hearings or conferences, and 5,354 complaints have been received which have been adjusted or are in process of adjustment. Four investigations have been made in accordance with chapters 14, 30 and 65 of the resolves of the General Court for 1924 and with the provisions of chapter 444 of the Acts of 1924. In connection therewith, hearings have been held and reports thereon have been or will be made to the General Court. A statement similar to those inserted in the annual reports of the four preceding years follows, giving the number of companies, persons and municipalities under the jurisdiction of the Commission engaged in some form of public utility operation which file annual returns showing the result of their operations: There are 345 such companies, persons and municipalities, divided as follows: steam railroad companies, 31; street railway companies, 42; telephone companies, 22; telegraph companies, 6; steamboat companies, 4; canal companies, 1; sleeping car companies, 1; voluntary associations, 16; express companies, 19; gas companies, 53; electric companies, 55; water companies, 49; municipalities, 41; manufacturing companies doing gas or electric business, 5.

The following indicates the volume of work requiring the attention of the Commission in 1924 as compared with the volume of work requiring its attention in 1923:

Petitions. — Railroad, 49 in 1923, 60 in 1924; street railway, 114 in 1923, 99 in 1924; telephone and telegraph, 3 in 1923, 7 in 1924; gas, 34 in 1923, 35 in 1924; electric, 74 in 1923, 69 in 1924; water, 9 in 1923, 9 in 1924; sale of securities, 63 in 1923, 16 in 1924; miscellaneous, 6 in 1923, none in 1924; total, 352 in 1923, 295 in 1924.

Investigations. — Railroad, 2 in 1923, 1 in 1924; street railway, none in 1923, 2 in 1924; gas, 1 in 1923, 1 in 1924; sale of securities, 300 in 1923, 41 in 1924; total, 303 in 1923, 45 in 1924.

Complaints. — Railroad, 215 in 1923, 185 in 1924; street railway, 67 in 1923, 65 in 1924; telephone and telegraph, 2,590 in 1923, 2,973 in 1924; gas, 129 in 1923, 78 in 1924; electric, 317 in 1923, 250 in 1924; water, 6 in 1923, 3 in 1924; sale of securities, 1,500 in 1923, 1,800 in 1924; total, 4,824 in 1923, 5,354 in 1924.

Applications for Special Permits. — Railroad, 57 in 1923, 50 in 1924; street railway, 12 in 1923, 9 in 1924; miscellaneous, none in 1923, 2 in 1924; total, 69 in 1923, 61 in 1924.

RAILROADS

During the last year the railroads of New England have shown marked financial improvement, notwithstanding the poor business conditions that have generally obtained.

For the first time since the restoration of the roads to private management the Boston and Maine and the New York, New Haven and Hartford railroads have earned a substantial sum over and above the payment of their operating expenses and fixed charges. This is all the more encouraging as the result has been accomplished with reduced gross revenues. Notwithstanding this improvement, the roads are still a long way from a condition capable of providing properly for the needs of New England, namely, a condition which will enable them to earn a fair return upon the investment. Until they reach this point, they cannot make the improvements necessary to keep pace with the requirements of our industries. In our judgment they suffer largely from the following causes:

- (1) Improper division of through rates.
- (2) Inadequate remuneration for various services performed, such as switching and spotting service, carriage of mail and parcel post, and carriage of express matter and baggage,
- (3) Unregulated competition of motor vehicles, and
- (4) Excessive interest charged by the United States government for loans made to them.

Moreover, these two railroad systems are made up in large part of what were formerly competing lines. Consequently it probably is true that there is some trackage, which, but for this competition, would never have been built and which is not now self-sustaining.

Most, if not all, of these adverse conditions, in our opinion, can be corrected. Some require action on the part of Federal authorities; others, their approval. All need the support of the general public. With relief obtained therefrom and increased revenue derived from normal business conditions, the railroads, with efficient management, provided there were no marked increases in labor costs, would, in our opinion, speedily secure that financial ability so needed for the welfare of the Commonwealth.

STREET RAILWAYS

The street railway situation is not as satisfactory as it was at the time of our last annual report. This is due primarily to two causes,—poor business conditions, resulting in a marked falling off in riding, and increased labor costs. As a street railway company has practically only one source of income, i.e., fares, increases in fares have been necessary in several instances to meet these conditions.

In our last annual report we said "If normal conditions prevail during the coming winter so that no extraordinary expense is put on the companies for the removal of snow and ice, and labor costs do not materially increase, there is good reason to believe that the public will benefit in receiving adequate service at reasonable rates of fare." To a large degree normal weather conditions did prevail during the winter of 1923-4. The various street railway companies were put to no extraordinary expenses for the removal of snow and ice and for repairs made necessary by severe storms. A business depression, however, prevailed during most of the year, resulting in a large falling off in passengers carried, particularly in the industrial cities. Moreover, there is no doubt that increased use of automobiles has reduced the number of street railway passengers. Add to this the material increases in wages on several of the larger street railway systems and it is not difficult to find a reason or, rather, a necessity for the increased fares during the year.

On the whole the condition of rolling stock has improved and there is a constant tendency to provide more up-to-date and efficient equipment.

In our last two annual reports we have commented on the increased use and operation of one-man cars, so that further extended comment is not necessary at this time.

The tendency during the last year has been toward an increase in the use of automobile busses to supplement service rendered by trolley cars. It seems improbable that motor cars can ever adequately take the place of street car service in the larger cities, owing to the fact that the automobile

bus uses so much more space in the streets and that no bus at present in use can carry as many passengers as a modern trolley car. It would necessitate the use of many more busses than street railway cars to carry the same number of people. The service would be slower, and the stops more frequent, owing to traffic conditions. Further, such service would be more seriously affected by weather conditions, such as severe storms. For service to and from the business districts of the larger cities, transportation by bus is not and cannot be adequate, at any rate under present conditions. It seems apparent, however, that in certain localities and for various routes such transportation service serves a useful purpose. It may be noted that the operation of motor busses is primarily a matter for the local communities in which or through which they are to run. No such operation can be had if the local authorities decline or refuse to issue a license therefor. If such transportation is to increase it will be because the local authorities are convinced that it is to their interest, can be accomplished with safety to the public and the passengers, and serves a transportation end.

The street railway companies are, we believe, making a real and honest effort to keep down operating expenses, and in this effort the public has shown and is showing a desire to co-operate. No street railway company can attract or obtain new money necessary for improvements so that it may render reasonably up-to-date service unless it receives sufficient revenue to enable it to pay a fair return on the capital reasonably and prudently invested in the business. No street railway company can stand still. It must, like any other business, continue to keep up with the times and with the modern improvements in the industry. If it fails in this regard, the public suffers through poor and inadequate service. The future of the street railway business seems to be in furnishing transportation to, from and in the centers of population. Automobile bus service, or some similar service, will provide transportation in the less thickly populated communities and in the country districts.

GAS, ELECTRIC AND WATER COMPANIES

Numerous petitions for increases of capital stock and issues of bonds have been received and decisions made thereon. The increases allowed have been on account of additions and betterments to the properties of the several companies made necessary to take care of increased demands for gas and electricity. The physical condition of the companies is better than a year ago and is constantly being improved.

The depression in business, above referred to in connection with the street railway companies, has also adversely affected the earnings of the gas and electric companies, but not to the same extent. On the whole the financial condition of most of the gas and electric companies is good and continues to show improvement. It has been quite easy to find a market for the securities at advantageous prices and on reasonable terms.

Petitions for decreases in prices have been few.

Counsel for petition of the customers of The Edison Electric Illuminating Company of Boston and of the Mayor of Boston to fix the price of electricity sold by said company — to which reference was made last year — have not yet finished presentation of their evidence. Hearings thereon are still being held. With this exception, all hearings affecting prices have been concluded and decisions rendered thereon.

SALE OF SECURITIES ACT

In 1924, 923 brokers and 3,472 salesmen were registered. Fees for such registrations received, and paid to the Treasurer of the Commonwealth, amounted to \$53,094. The sale in this Commonwealth of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$518,606,645 has been stopped by action of the Commission. Since the effective date of the Act (August 26, 1921), up to November 30, 1924, sale of securities of corporations, trusts, associations or other bodies having an aggregate par value of \$1,330,767,546 has been stopped. During the year

92 formal hearings have been held on complaints arising in connection with sales of securities or the manner in which brokers or salesmen have conducted their business. The registrations of 15 brokers and 251 salesmen have been revoked and cancelled on the registers by orders of the Commission. The registrations of 5 brokers and 41 salesmen have been cancelled in accordance with their requests. In additions to the formal hearings mentioned above, some 1,800 complaints have been taken up and adjusted. These complaints did not result in formal hearings.

Chapter 487 of the Acts of 1924 substantially amended and extended the scope of the "Sale of Securities Act." This chapter became effective on September 2, 1924, except as to the provisions relating to the registrations of brokers and salesmen not registered prior to October 1, 1924, which provisions became effective on said October 1, 1924. The provision in said chapter as to acquirements and qualifications of brokers and salesmen applying for registration after said October 1 has already proved effective in preventing the registrations of a substantial number of applicants, particularly applicants for registration as salesmen from other states. As a consequence the duties and powers of the Commission have been increased and it became necessary to employ two more stenographers, and further additions to the office force are now needed.

Chapter 487 of the Acts of 1924 was the result of an order of the General Court of 1923, upon which order the Commission made a report to the General Court in January, 1924. After careful consideration the Commission recommended such changes in the then existing law as it deemed necessary and expedient. Most of these changes were enacted by the General Court in said chapter. As the law now stands, the Commission believes it to be more effective, and only one recommendation for further amendment has been made this year — which relates to a matter of procedure.

Various chambers of commerce and boards of trade throughout the Commonwealth and the Boston Better Business Association have continued to co-operate with the Commission. Such co-operation has been and will continue to be of great value and assistance to the Commission in the performance of its duties. No so-called "Blue Sky Law" or "Sale of Securities Act" can be drawn that will furnish an absolute safeguard or protection in all cases. After all, the best remedy is the education of the people. When the people of a community come to realize that they should consult with their local banks or boards of trade before purchasing any securities that may be offered, such community will have very little trouble with fly-by-night salesmen or fraudulent securities. We cannot stop speculation. Perhaps it is well that we make no attempt to prevent legitimate speculation. We can, however, punish a broker or salesman who fails to apprise his customer of the speculative character of any security and to set that fact forth plainly in all literature, circulars or advertisements used or published by him or by his principal in connection with, or in description of, the sales of that particular security.

In our report for the year ended November 30, 1922, appears the following: "The sale of securities by brokers and promoters outside of the Commonwealth to residents in this Commonwealth by the use of the mails is beyond the power of this Commonwealth to prevent. As a consequence, promoters outside the Commonwealth continue to flood Massachusetts with literature sent through the mails painting in glowing terms the merits of securities that could not be sold within the Commonwealth. This is a subject with which Congress alone can deal. Legislation is now pending in Congress to this end." This condition exists today. No legislation has been passed by Congress. It is our opinion that Congress should pass a law making such practices illegal.

JITNEYS

Reference has been made above to the increased use by street railway companies of automobile busses to supplement street car service. Two appeals from action of the local authorities relative to rules and regulations for the

operation of motor busses have been brought to the Department for decision during the past year — one from rules and regulations established by the City of Northampton, the other from such rules and regulations established by the City of Gardner. Decisions have been made in both cases.

The operation of automobile busses for long trips has increased and several bus lines are now operating in the Commonwealth for distances of over twenty-five miles. Further, such operation has been and is in effect between Worcester and Providence, between Providence and Fall River, between Pittsfield and Albany, and in some other instances where the journey is interstate.

CAPITAL STOCK AND BONDS

Thirty-seven applications for approval of an issue of stock, bonds or notes have been decided during the year which ended November 30, 1924. The par value of the securities asked for was \$39,830,400, and the par value of the amount approved was \$37,859,400.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law.

Company	Capital Stock Approved			Bonds approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Arlington Gas Light Company	\$400,000	\$110 00	\$440,000	—	July 31
Attleboro Steam & Electric Company	104,000	37 50	156,000	—	June 12
Berkshire Water Company	20,000	100 00	20,000	\$40,000	July 10
Boston & Albany Railroad Company	—	—	—	1,500,000	July 21
Boston Elevated Railway Company	—	—	—	2,098,000	Feb. 15
Boston Elevated Railway Company	—	—	—	1,581,000	June 19
Boston & Maine Railroad	—	—	—	7,000,000	Dec. 21
Cape & Vineyard Electric Company	—	—	—	550,000	May 28
Citizens' Gas Light Company of Quincy	350,000	100 00	350,000	—	Sept. 12
Edison Electric Illuminating Company of Boston	7,785,700	155 00	12,067,835	—	Nov. 3
Edison Electric Illuminating Company of Brockton	645,000	165 00	1,063,250	—	Jan. 9
Fall River Electric Light Company	1,750,000	28 00	1,960,000	—	Jan. 9
Fitchburg Gas & Electric Light Company	617,150	65 00	802,295	—	July 14
Gardner-Templeton Street Railway Company	30,000 ¹	100 00	30,000	—	Mar. 5
Greenfield Electric Light & Power Company	425,000 ¹	100 00	425,000	—	Feb. 25
Greenfield, Town of	50,000 ²	25 00	50,000	70,000 ³	July 1
Haverhill Gas Light Company	280,800	70 00	393,120	—	Dec. 27
Hingham Water Company	—	—	—	100,000	May 28
Holyoke Street Railway Company	—	—	—	200,000	Mar. 27
Leominster Gas Light Company	265,000	100 00	265,000	—	Oct. 31
Lowell Electric Light Corporation	441,500	160 00	706,400	—	May 2
Lynn Gas & Electric Company	406,250	62 50	1,015,625	—	May 9
Malden Electric Company	801,000	37 50	1,201,500	—	Oct. 24
Marlborough Electric Company	92,500	120 00	111,000	—	Dec. 14
Montague, Town of	—	—	—	31,000 ³	July 22
Montaup Electric Company	2,900,000 ¹	100 00	2,900,000	—	Jan. 9
Old Colony Gas Company	1,500,000 ²	100 00	1,500,000	—	Jan. 25
Old Colony Railroad Company	—	—	—	257,000	Jan. 28
Pittsfield Coal Gas Company	150,000	110 00	165,000	3,500,000	July 15
Scituate Water Company	—	—	—	50,000	Aug. 1
Turners Falls Power & Electric Company	363,400	100 00	363,400	—	Nov. 21
United Electric Light Company	800,000	160 00	1,280,000	—	Jan. 29
Weymouth Light & Power Company	—	—	—	250,000	May 14
Woburn Gas Light Company	45,100	110 00	49,610	—	Feb. 6
Worcester Gas Light Company	350,000	25 00	350,000	—	Mar. 5

¹ Common.

² Preferred.

³ Or notes.

LEGISLATIVE INVESTIGATIONS

Chapter 14 of the Resolves of 1924 (approved April 10, 1924) provided for an investigation by the Department of Public Utilities relative to the use of automatic devices for shutting off the supply of gas from buildings and for a report to the next General Court not later than the second Wednesday of

January, 1925. Hearings were held on the subject matter of the said resolve and report thereon was transmitted to the General Court on January 14, 1925.

Chapter 30 of the Resolves of 1924 (approved May 1, 1924) provided for an investigation by the Department of Public Utilities relative to the issue by railroads of monthly commutation tickets and further provided that the said Department publish its findings not later than May 15, 1924. A hearing was held on the subject matter of the said resolve and a finding thereon was issued on May 15, 1924.

Chapter 65 of the Resolves of 1924 (approved June 4, 1924) provided for an investigation as to relocating certain elevated structures in Cambridge Street in the city of Boston in connection with the widening of said street. Hearings were held on the subject matter of the said resolve and a report made thereon to the General Court on December 9, 1924.

Chapter 444 of the Acts of 1924 provides for the construction and use of an additional station in connection with the Cambridge subway at or near the junction of Cambridge and Charles streets in the city of Boston. The act provides that the construction thereof shall not begin until a contract has been executed between the Commonwealth and the Boston Elevated Railway Company for its use. A hearing has been held on the subject matter of the act and a plan has been prepared. The Public Trustees of the Boston Elevated Railway Company and the Directors of that company have given assurance to this Department that a contract will be signed for the use of the station. Detailed plans and specifications and a contract for the use of the station are now being prepared. Upon the signing of this contract, the actual work of construction will begin.

LEGISLATION RECOMMENDED

1. *Regulations Relative to the Operation of Certain Motor Vehicles*

Section 47 of chapter 159 of the General Laws now provides that where an appeal is taken to this Department from orders, rules or regulations adopted by the licensing authority in a municipality where it is proposed to operate a motor vehicle and this Department establishes orders, rules and regulations thereafter to be observed, they cannot thereafter be amended or altered by the local authorities but only by this Department upon its own initiative, or upon petition of any person operating any such motor vehicle in such municipality, or of a railway company if operating a railway therein, or twenty residents thereof after notice to the licensing authority of such municipality. Experience in the operation of motor vehicles under the rules is apt to bring to the attention of those having charge of their enforcement in the municipality the desirability of changes in such rules. We think it desirable that the municipality, through its mayor or its selectmen, should have the power to petition this Department directly for such changes, rather than under the statute they should be forced to resort to the expedient of obtaining twenty residents of the community to petition the Department, or to bring the matter informally to the attention of the Department that it take up the matter of its own initiative. We therefore recommend that said section be amended to permit the mayor of a city or the selectmen of a town to petition this Department for changes in the orders, rules or regulations.

2. *Compulsory Supply of Gas or Electricity*

Section 92 of chapter 164 of the General Laws now provides that, upon written petition of any person having a residence or place of business in a town where a corporation is engaged in the manufacture or sale of gas or electricity, after notice and hearing, this Department may order gas or electricity to be supplied to the petitioner upon such terms and conditions as are legal and reasonable. The number of high-power electric transmission lines is rapidly increasing in Massachusetts and in some cases pipe lines for gas are being laid through one or more communities other than where the gas is manufactured. In the case of the transmission lines, particularly, there are

many communities in the State, particularly in the middle and western part thereof, in which these lines run which have no company manufacturing electricity and in which no company sells electricity. It seems to this Department that authority should be given to require service to be given from these transmission lines to the inhabitants of these communities under legal and reasonable conditions. The welfare of the State, the development and growth of sparsely settled territory thereof, can be greatly enhanced if electricity for light and power purposes can be more generally supplied throughout all portions thereof. We accordingly recommend that section 92, above referred to, be amended by the insertion of the word "transmission" after the word "manufacture" therein.

3. *Calorific Standard for Gas*

By section 107 of chapter 164 of the General Laws the Department is authorized to establish a calorific standard for gas thereafter to be supplied by gas companies or municipal lighting plants. Under this section the calorific standard has been established at 528 British thermal units for each cubic foot.

This standard requires machinery and appliances of a type expensive to install or operate and thus requires a large use of gas in any given community in order to make profitable its operation. We believe there are communities in the Commonwealth not now supplied with gas, or that are now supplied with gas at an unusually high cost, where a lower standard of gas might be used to better advantage than the standard now required. There are inventions which enable the manufacture of gas, particularly in communities where the volume sold is small, at a much lower cost than it would be manufactured under the prevailing methods. By these inventions gas cannot be manufactured economically at the high British thermal unit required by the standard. On the other hand, a very satisfactory gas can be produced, and thus a gas of somewhat less heat content can be produced and sold at a lower price than it can be under the present standard.

We have heretofore interpreted section 107 as not permitting us to make any distinction in the calorific standard of gas to be sold throughout the Commonwealth, and consequently means of producing a cheaper gas, which in certain communities would be much more to the advantage of the inhabitants than the gas of the high content, could not be employed unless this Department is prepared to make a general reduction in the standard required throughout the Commonwealth. This we have felt up to the present time to be undesirable, but we do feel that under certain circumstances and conditions this use of a lower standard gas would be in the interests of the public. This is borne out by the experience of communities in other states.

Accordingly, we recommend a bill which will allow the Department to exempt a gas company or a municipal lighting plant from the general standard fixed by the Department, under such terms and conditions as the Department may determine.

4. *Appeals under the Sale of Securities Act*

Section 7, of chapter 110A of the General Laws provides that any interested person aggrieved by any order or finding of the Commission, or by any refusal or failure of the Commission to make an order, shall be entitled to a public hearing thereon before a majority of the members thereof, but no time limit is set within which applications shall be made for such hearing. The same section provides that the Commission shall rule on requested questions of law within ten days and shall pass upon the subject matter within twenty days of the conclusion of the hearing. We feel that parties whose registrations have been cancelled or whose securities have been barred from sale should apply to the Commission for a hearing before a majority of the members thereof within a reasonable time and not be allowed an indefinite period of time which might permit a rehearing years after the first action. Accordingly we recommend that section 7 be amended by inserting a provision that

applications shall be made for a hearing before a majority of the Commission within thirty days after an order or finding or a refusal or failure of the Commission to make an order.

Respectfully submitted,

HENRY C. ATTWILL,
EVERETT E. STONE,
HENRY G. WELLS,
LEONARD F. HARDY,
DAVID A. ELLIS,

Commissioners of the Department of Public Utilities.

DIVISION REPORTS

Accounting Division

There are now under the jurisdiction of the Department three hundred and forty-five companies, municipalities and voluntary associations engaged in some form of public utility operation, all of which are required by law to file an annual report, showing the result of operation for the year, also the general financial condition. The figures contained in the reports are carefully checked, and all errors and omissions must be corrected by the companies before the reports are finally accepted.

In addition, the accounting division is required to analyze the accounts for the purpose of enforcing uniform accounting as prescribed by the classification of accounts and also for the purpose of securing accurate statements of the financial and physical condition of the companies.

During the year the division has investigated expenditures on account of additions and betterments to property by twenty gas and electric companies, two water companies, one railroad and two street railways, the investigations including an examination of the accounts and in most instances an inspection of the property.

The statistical information which appears in the annual report of the Department has been compiled, and the information and statistics of value to the Commission and the general public has been furnished.

The water companies reported this year for the first time, under the new classification of accounts which became effective July 1, 1923.

Engineering Division

During the year the division has investigated expenditures on account of additions and betterments by the Boston Elevated and the Holyoke street railways, the Boston and Albany railroad and the Boston Terminal companies.

Valuations of the properties of the Athol and Orange, the Gardner and Templeton, and the Interstate Consolidated street railways, the Greenfield and Montague Transportation Area and the Heath Telephone Company were made.

Plans for six bridges carrying street railway tracks have been submitted for approval.

A plan for a proposed station on the Cambridge tunnel line near the junction of Charles and Cambridge streets has been prepared by the engineers of the Department of Public Utilities and the Boston Transit Department.

In connection with railroad and railway signals twelve interlocking towers and twenty-two automatic signals were inspected, six plans for changes were examined and one complaint investigated.

Gas and Electric Division

During the past year about thirty reports were submitted to the Commission either on special assignments or concerning cases which arose in the course of the administration of the compulsory supply statute. Over 300 cases which came for various reasons within the scope of that statute were disposed of without the formal action of the Department. (Hearings were

assigned in 21 cases, 18 of which involved the Edison Company of Boston.) Investigations were made of such accidents reported to the Commission as required further attention.

ACCIDENTS

On March 10, 1924, the Department issued to all gas and electric companies a general request to report certain accidents, which although they might not come within the definition of those which must be reported according to law, nevertheless should be reported for the information of the Department. The investigations made during the year revealed two conditions which are called to the attention of gas companies.

In one case a number of meters exploded during an evening and the following morning. They were all within a small area and in their midst was a service connected with an oxygen-illuminating gas welding outfit and the ordinary compressed air equipment of a tire shop. Accidents from such a source are not rare. They are usually local in effect but in addition to the danger to be apprehended from unburned gas, they bring the possibility of fire and serious personal injury from detonated meters. In such installations there should be a general requirement by gas companies for the protection of their systems against accidentally intruded air.

In the other accident the lives of two men were lost and two others were endangered when they entered a sewer manhole near a gas line. There was no evidence of a leak of such proportion as to call for special attention from the gas company under ordinary circumstances, but because the ventilated holes in the manhole cover were completely sealed by road surfacing material there was an absence of the normal ventilation which would have prevented the vitiation of the sewer air or the accumulation of gases foreign to sewers. This is a situation in part beyond the control of gas companies but the resurfacing of streets should be noted as introducing an additional problem in gas distribution.

COMPLAINTS

That the concern of the gas and electric companies for that aspect of their business called "public relations" is resulting in a pronounced accomplishment is shown from the decreasing number of complaints which have reached this Department in the last few years. Beginning with 1921 their number has been successively 596, 557, 443 and 328. (The record of the Boston Consolidated Gas Company excellently illustrates the accomplishment possible through an earnest endeavor to give adequate consideration to customers' problems. The complaints reaching the Department from the 242,000 customers of this Company during the past three years have been successively 95, 55 and 24.)

As an extended discussion of the significance of the complaints which elude the companies and reach this Department was given in the report for 1922 it will not be repeated here, but the significant statistics, including the figures for the past year, are given in the following tables:

TABLE I. — *A General Analysis of Complaints Received During 1924*

	All Gas Companies	Edison Company of Boston	All other Electric Companies	Total
Quality of supply	—	—	2	2
Large bills	23	7	8	38
Errors in reading or billing . .	5	2	5	12
Prepayment meters	1	—	—	1
Meter tests only	5	6	3	14
Supply shut off	8	9	3	20
Service required	28	131	47	206
Explanation of rates	3	2	11	16
Deposit requirements	2	7	4	13
Miscellaneous	3	2	1	6
Total	78	166	84	328

TABLE II.—*Number of Complaints against Certain Companies*

	1922	1923	1924
Abington and Rockland	3	9	5
Adams	4	3	2
Amesbury Gas	6	9	—
Arlington Gas	15	8	7
Boston Consolidated	97	55	24
Brockton Gas	7	2	—
Cambridge Electric	7	5	1
Cambridge Gas	11	10	4
Cape and Vineyard Electric	14	10	5
Charlestown Gas and Electric	14	10	6
Dedham and Hyde Park	9	—	—
Edison of Boston	200	204	166
Edison of Brockton	5	3	2
Lawrence	7	4	6
Lowell Electric	13	16	15
Lynn Gas and Electric	4	6	1
Malden Electric	10	4	2
Malden Gas	24	21	11
Marlboro Electric	10	4	—
Plymouth Electric	5	10	5
Quincy Electric	3	2	4
Suburban Gas and Electric	14	6	8
Worcester Suburban Electric	5	4	5
38 other companies			49
23 other companies			<i>None</i>
			328

TABLE III.—*Summary of Cases set for Formal Hearings, giving Name of Company, Grievance, and Conclusion (in Parentheses)*

<i>Hingham Water</i> , Shut off (Adjusted during hearing).
<i>Charlestown Gas and Electric</i> , Underground supply demanded (Dismissed.)
<i>Beverly Electric</i> , Gas supply (Pending).
<i>Edison Electric of Boston</i> , Charge for work on private property (Dismissed.)
<i>Edison Electric of Boston</i> , Refund of charge for work on private property (Dismissed.)
<i>Edison Electric of Boston</i> , Supply (Granted at hearing.)
<i>Edison Electric of Boston</i> , Supply (Ordered.)
<i>Edison Electric of Boston</i> , Size of deposit (Dismissed.)
<i>Edison Electric of Boston</i> , Supply (Pending).
<i>Edison Electric of Boston</i> , Supply (Granted before hearing).
<i>Edison Electric of Boston</i> , Classification on rate schedule (Ordered.)
<i>Edison Electric of Boston</i> , Supply (Granted at hearing).
<i>Edison Electric of Boston</i> , Supply (Granted before hearing).
<i>Edison Electric of Boston</i> , Underground supply demanded (Dismissed.)
<i>Edison Electric of Boston</i> , Supply (Ordered.)
<i>Edison Electric of Boston</i> , Supply (Ordered.)
<i>Edison Electric of Boston</i> , Supply (Granted after hearing).
<i>Edison Electric of Boston</i> , Supply (Pending).
<i>Edison Electric of Boston</i> , Payment for diverted electricity (Dismissed.)
<i>Edison Electric of Boston</i> , Supply (In process of adjustment).
<i>Edison Electric of Boston</i> , Supply (Granted at hearing).

TEST OF ELECTRIC METERS

Electric meters are tested either on the complaint of the customer or the company, and the permissible variation fixed by law is 5 per cent.

The test of an electric meter is the final procedure necessary to enable a customer to verify a bill for electricity, — various provisions of the statutes

having afforded him protection against other possible errors, if he will avail himself of the opportunities which they provide. Tests continue to be made, however, for those who will not make the effort to determine whether or not the trouble is in the meter, who simply demand a meter test, and prefer to forfeit the nominal testing fee rather than to make any personal effort to determine the cause of large bills.

Eight meters were tested during the past year. None were incorrect as defined by statute. The average error was three tenths of one per cent fast. The fees amounted to \$22.50 and the cost for testing was \$136.26.

Gas Inspection Division

During the year ended November 30, 1924, there were 122,636 gas meters inspected and 655 gas inspections made of the gas supplied by the 53 corporations and 4 municipalities. Pressure surveys in continuation of the work previously done were made in the districts of 19 companies; 75 special thermometers were calibrated; 10 calorimeter meters and two meter provers were calibrated; beside special work and investigations of accidents and complaints. The gas meter fees collected and paid the State Treasurer totalled \$31,135.60, while the expenses of the Division were \$26,188.36.

Included in the total number of meters inspected were 1,176 reinspected on complaint of customer or gas company. The average error of these meters was 2.13% fast and ranged from 63% slow to 12% fast, while 43.92% of the complaint meters tested were correct within the 2% tolerance allowed by statute. Of the new and repaired meters tested 73 did not pass inspection and were not sealed; there were 16,136 "prepayment" meters which were tested in the same way as regular meters for accuracy of measurement and registration, but not for accuracy of the coin device.

The standards of gas quality as determined by the Commission under authority of Sections 107 and 109 of Chapter 164 General Laws are: Total British thermal units (Btu's) minimum, 528 per cubic foot, 30 grains total sulphur and 10 grains ammonia per 100 cubic feet of gas and no sulphuretted hydrogen. The average heating value of all companies was 545.5 Btu's and the average variation between the highest and lowest tests of all companies was 41.7 Btu's. As uniformity of quality is the measure of good service, it is significant that 22 companies showed a variation during the year of less than 30 Btu's.

In the 655 inspections there were 115 violations or failures to meet the standards by 35 companies and one municipality; of these violations 80 were of heating value, 33 of sulphuretted hydrogen and one each total sulphur and ammonia.

Among the activities of the office were investigations of accidents and explosions including the examination of a gas radiant-fire heater which, on account of incomplete combustion, was the presumable cause of a death; an explosion in a gas range, the result indicating that the range burner was out of adjustment; an explosion in a purifier at the Cambridge Gas Light Co. as a result of which additional precautions were recommended for future work; the atmosphere of a sewer manhole where two deaths occurred; and the explosion of a gas fired steam heating apparatus.

Two types of railroad cars driven by gasoline motors, and heated by systems that require a coal fire in the car, were examined as to the safety of the use of such warming devices and after changes, approved.

The following is a summary of the records of accidents reported for the year ended November 30, 1924:

There were 478 accidents caused by gas and 81 by electricity. Of the gas cases 243 were fatal, 115 of them being suicides and 1 homicide. There were 236 non-fatal gas cases, 53 of them being with suicide intention and 4 with homicidal intention. Two of the fatal cases and 4 of the non-fatal cases were company employees. Of the accidents caused by electricity 17 were fatal, 7 of them being company employees, and 64 were non-fatal, 34 being company employees.

Railroad and Railway Inspection Division

The following report shows the work performed by this division during the year ended November 30, 1924.

COMPLAINTS

The number of complaints received in connection with railroad operation was 185; in connection with street railway operation, 65. These complaints were investigated and adjusted by this division, thus obviating the necessity of public hearings or conferences and the issue of orders or memoranda by the Department.

INQUESTS

The number of inquests in cases of death by accident attended by inspectors was 176.

RAILROADS

Locomotives

The number of locomotive inspections made at various times was 5,993.

In 4,715 inspections no defects were found. In 1,278 cases locomotives were found defective because of steam leaking so as to obscure the vision of enginemen, or were found to have defective boilers, wheels, spark arresters, or ash pans. These defects were called to the attention of the proper officials and remedied.

The number of special examinations of spark arresters and ash pans was 4,849.

During the year 24 new engines were put into operation in Massachusetts, 4 on the Boston and Albany and 20 on the New York, New Haven and Hartford Railroad.

Frog and Switch Blocking

The number of pieces of foot blocking found to be missing or defective, called to the attention of proper officials and remedied, was 6,100.

Bridge Guards

The number of bridge guards found defective, called to the attention of proper officials and remedied, was 2,015.

Steam Passenger Train Equipment

The number of passenger coach inspections made during the year was 10,504. Of this number 468 were found defective with reference to wheels, brakes, lighting, car seat frames, missing emergency tools, or because of untidy conditions.

Steam Freight Train Equipment

The number of freight cars inspected and found to be in good condition was 11,682; found defective, 386. Caboose cars inspected and found without defects, 254; found defective, 35. Milk cars inspected and found to be in good condition, 69; defective, 9.

Passenger Stations

The number of inspections of passenger stations made at various times where stations were found to be in good or fair condition was 3,816. The number of stations found defective with reference to platforms, lavatories, or because of untidy conditions, and called to the attention of proper officials and remedied, was 259.

Accidents

The number of fatal accidents to individuals on steam railroads investigated was 142. The number of serious personal injuries investigated was 178; crossing accidents investigated, 89; other accidents investigated, such as derailments and collisions, 111.

The number of persons killed and injured in the operation of railroads in Massachusetts during the year ended November 30, 1924, as reported by the several companies, is shown by the following table:

	Killed	Injured
Passengers	7	56
Employees	31	42
Travelers on highway at grade crossings	29	49
Trespassers	41	8
Others	2	4
Total	110	159

The number of employees killed and injured during the year, classified by character of employment, is shown by the following:

<i>Character of Employment</i>	Killed	Injured
Enginememen and firemen	6	8
Conductors and trainmen	1	12
Trackmen and laborers	5	5
Bridgemen	—	1
Shopmen	6	—
Crossingmen	1	—
Inspectors	4	1
Freight handlers	1	—
Yardmen	1	3
Watchmen	1	—
Enginehouse men	2	5
Car cleaners	1	—
Others	2	7
Total	31	42

The following table shows the character of accidents to employees during the year:

<i>Character of Accident</i>	Killed	Injured
Collision	1	3
Derailment	3	9
Overhead and side obstruction	2	3
Coupling and uncoupling	—	1
Falling	2	6
Engine accidents	—	6
Walking on or crossing tracks	11	—
Getting on or off cars, trains, etc.	—	2
Working on track	4	1
Others	8	11
Total	31	42

The following table shows the number and character of accidents at grade crossings on the different railroads during the year:

Accidents at Grade Crossings during the Year ended November 30, 1924

<i>Railroads</i>	<i>Protected Crossings</i>				<i>Unprotected Crossings</i>			
	Num- ber	Killed	In- jured	Ratio of Accidents to Crossings	Num- ber	Killed	In- jured	Ratio of Accidents to Crossings
Attleborough Branch	—	—	—	—	15	—	—	—
Boston & Albany	65	—	—	—	119	—	—	—
Boston & Maine	526	9	9	1 to 29	218	3	9	1 to 18
Boston, Revere Beach & Lynn	9	—	—	—	—	—	—	—
Hoosac Tunnel & Wilmington	—	—	—	—	6	—	—	—
New London Northern	7	—	—	—	39	—	2	1 to 20
New York, New Haven & Hartford	480	9	13	1 to 22	285	8	16	1 to 12
Total	1,087	18	22	1 to 27	682	11	27	1 to 17

STREET RAILWAYS

Certificates for Operation

The number of inspections of new street railway tracks made as a preliminary to issuing certificates for operation was 14.

Street Railway Equipment

During the year 10,085 car inspections were made, and in 9,340 cases no defects were found. The number of cars found defective with reference to wheels, brakes, lighting, car seat frames, or because of untidy conditions, was 745. The number of street railway busses inspected was 190, of which one was found defective.

Accidents

The number of fatal accidents to individuals investigated was 84. The number of accidents caused by broken or loose wheels, broken journals and axles investigated was 49; miscellaneous accidents investigated, such as collisions, personal injuries, and accidents caused by faulty operation, 121; accidents caused by spread rails, broken rails, defective special work, poor surface and alignment of track, 160.

Bridges

On the railroads and street railways in the state there are approximately 3,000 bridges having a clear span of 10 feet or more. During the year 2,999 inspections were made of these bridges. In addition, one highway bridge in Taunton was inspected in connection with the operation of busses. The above includes at least one inspection of nearly every railroad and street railway bridge on the list and also the inspection of several bridges of less than 10 feet span. Following is a summary of the bridge inspections made during the year:

Railroads, main line, 1,520
Street railways, main line, 842
Sidetracks of railroads, 596
Private railroads, 41
Highways, 1
Total, 3,000

Several bridges have been built or rebuilt during the year, the work still being in progress on some of them, and extensive repairs have been made on several bridges.

Rate and Tariff Division

New tariffs filed during the twelve months ending November 30, 1924, were:

On steam roads, freight service, 761, passenger service, 191; electric street railways, freight, 47, passenger, 30; express companies, 52; telephone and telegraph companies, 22; companies furnishing the public with electricity, 38; municipal plants furnishing electricity, 13; gas companies, 13; municipal gas plants, 3, making a total of 1,170.

The changes have not been radical but the large majority indicate reductions of some sort. The fact that the Interstate Commerce Commission has under advisement at the present time a new freight basis for the general territory east of the Mississippi River has made it more-or-less uncertain as to what could properly be done in making freight changes during the past year. It is quite possible that another year may see a larger number of changes than occurred during the year ending November 30, 1924.

Telephone and Telegraph Division

The division handled 2,973 cases. A large percentage of these concerned applications for new telephone service or regrades of existing services, and relief was given in about 75 per cent thereof.

The handling of 2,973 cases, as against 2,590 in 1923, left no time for the very important work of service observation.

Following the survey published by the division in January, service showed

marked improvement for quite a few months but the summer period brought a noticeable relapse.

From time to time the chief of the division has pointed out to the officials of the telephone company the weak spots in the service and the last two months of the year conditions have improved.

The chief of the division again emphasizes the necessity for short talks on party lines because of the lack of facilities to take care of subscribers who want something better than a four or a six-party line service. This condition is also true in business service where in a very large percentage of cases in the professional and business world it has been impossible to furnish better than two and four-party service. This has resulted in an increased percentage of busy reports which, as the division chief has noted in previous annual reports, is a very heavy debit in telephone operation.

In public discussion of the service problem the chief of the division has stated time and again that you can't get a reasonable standard of business telephone service if such telephones are used to any extent for unnecessary personal and social calls.

The chief of the division again calls attention to the fact that at least two additional inspectors should be added to the division, so that a reasonable service inspection work should be going on all the time. This is emphasized on the principle that in telephone operation the great big thing is service, and we have demonstrated beyond any argument that when the operators know inspectors from the Department are in the field on purely service tests there is a very noticeable increase in the efficiency of the service.

Abatement of Smoke Division

During the present year, which marks the completion of the twelfth year under the final provisions of Chapter 651 of the Acts of 1910, for the regulation of smoke in Boston and vicinity, no changes have been made in the method of conducting the work. Periodic and systematic observations have been made throughout the district by the inspectors, who have also made plant inspections whenever the amount of smoke observed seemed to indicate that a change had been made in the working conditions of any plant.

All complaints received by the Department, and there have been about twice as many this year as last, have been promptly investigated and if found to be due to the emission of smoke not prohibited by law, were so reported to the complainants, with the recommendation that the matter be referred to the local Board of Health. Where the smoke was in violation, suggestions for overcoming the difficulties were offered, and from time to time observations were taken to see if the conditions were corrected.

With the increased consumption of fuel oil there has been an increase in the number of violations observed from oil burning plants. Of the total number of recorded violations of stationary stacks last year, forty-two per cent were on oil burning plants while this year with the same total number of stationary violations, fifty-four per cent were on oil burning plants.

The marine violations have increased somewhat and in every instance was on a steamer burning oil. The locomotive violations are slightly lower.

It has not been found necessary to give any public hearings or to take further action on any of the formal orders issued in previous years.

The following comparative tabulated summary shows the work of this division for the year ending November 30, 1924, and the preceding year. Attention should be directed to the fact that again this year, of the total observations, those in which violations were noted for all classes of stack — stationary, locomotive and marine — are less than one-half of one per cent.

Recorded observations:	1923	1924
Stationary stacks	90,917	91,505
Locomotive stacks	36,294	36,866
Marine stacks	2,666	2,687
Total	129,877	131,058

	1923	1924
Observations recorded showing the emission of smoke in excess of the amount allowed by the act:		
Stationary stacks	157	157
Locomotive stacks	39	35
Marine stacks	3	8
Total	199	200
Percentage of observations in which violations were found:		
Stationary stacks . . . . .	.17	.17
Locomotive stacks . . . . .	.11	.30
Marine stacks . . . . .	.11	.09
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the carelessness of those immediately responsible for their operation	69	70
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, due to overloading the plant	3	2
Recorded observation of stationary stacks emitting smoke in excess of the amount allowed by the act, due to the fuel situation	19	—
Recorded observations of stationary stacks emitting smoke in excess of the amount allowed by the act, burning fuel oil	66	85
Stationary stacks upon which recorded observations have been made may be classified as follows:		
Public service	141	141
Manufacturing plants	815	836
Office buildings	814	842
Residences	17	16
Total	1,787	1,835
Stationary stacks upon which recorded observations showed smoke emitted in excess of the amount allowed by the act may be classified as follows:		
Public service	11	6
Manufacturing plants	42	50
Office buildings	44	36
Residences	—	—
Total	97	92
Number of stacks found after first notice or visit of chief inspector to have ceased emitting smoke in excess of the amount allowed by the act	69	57
Additional number of stacks so found after further notice or visits	27	35
Number of stacks from which the emission of smoke contrary to the requirements of the act had been observed and had not ceased at the close of the year:		
Public service	—	—
Manufacturing plants	1	—
Office buildings	—	—
Total	1	—



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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

Commission

OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1937



DEPARTMENT OF PUBLIC UTILITIES

ANNUAL REPORT

Boston, January 19, 1938.

*To the Honorable Senate and House of Representatives
in General Court Assembled:*

We respectfully submit the Eighteenth Annual Report of the Commission of the Department of Public Utilities for the fiscal year ended November 30, 1937.

Professor John J. Murray, Chairman of the Department, resigned December 18, 1936, to accept appointment as a member of the Board of Tax Appeals. The vacancy caused by his resignation was filled by the appointment of John J. Curley, of Boston, who assumed the duties of Commissioner December 19, 1936. The vacancy caused by the death on November 1, 1936, of Henry C. Attwill was filled by the appointment of A. C. Webber, of Newton, who was designated Chairman of the Department by the Governor, and assumed the duties of his office December 30, 1936.

Andrew A. Highlands, Secretary of the Department, died September 10, 1937. He had served continuously as Secretary of the Department and of its predecessor, the Public Service Commission, since October 24, 1913. Following the passage in 1921 of the Sale of Securities Act the active work connected with the administration of the act by the Commission was assigned to Mr. Highlands in addition to his duties as Secretary of the Department. The Commission records its deep sense of loss in the passing of a loyal associate, and its appreciation of his long and faithful service to the Commonwealth.

The Commission, on September 14, 1937, appointed Allan Brooks, Administrative Secretary, as Secretary of the Department to fill the vacancy caused by the death of Mr. Highlands.

The number of corporations, private and municipal, persons, firms, and associations under the jurisdiction of and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads	22	Electric companies	42
Street railways	19	Water companies	77
Telephone companies	14	Motor bus lines	57
Telegraph companies	3	Municipal lighting plants	41
Steamboat companies	2	Manufacturing and other compa-	
Sleeping car companies	1	nies doing an electric business 4	
Express companies	3	Voluntary associations	27
Gas companies	45		
Total			357

In addition to the above there are under the jurisdiction of the Department 919 common carriers and 11,368 contract carriers operating motor vehicles for the transportation of property for hire within the Commonwealth under the provisions of chapter 264 of the Acts of 1934 as amended.

During the year the Commission held 698 formal hearings and many conferences. The volume and character of the work requiring the Department's attention during the fiscal year are shown by the following tabulation:

Petitions and Applications: Railroad, 203; street railway, 64; gas and electric, 112; water, 9; motor bus, 109; motor truck, 74; telephone and telegraph, 9; steamboat, 11; sale of securities, 29; miscellaneous, 12; total, 632.

Complaints: Railroad, 141; street railway, 13; gas, 139; electric, 409; water, 24; motor bus, 89; motor truck, 673; telephone and telegraph, 491; sale of securities, 1,342; smoke abatement, 173; total, 3,494.

Rate Schedules: Railroad, freight service, 1,366; passenger service, 237; express, 196; street railway, 47; telephone, 24; telegraph, 8; motor bus, 151; motor truck, 657; electricity, 235; gas, 43; water, 7; gas, electric and water contracts, 260; total, 3,231 tariffs.

The appropriation for the Department and its expenditures for the fiscal year ended November 30, 1937, are given below:

Appropriations	\$378,642.36
Expenditures	363,254.67
Balance	\$ 15,387.69

The receipts of the Department for the same period are shown in the following itemized statement:

Gas, Electric and Water Division:	
Fees, gas meter tests	\$33,144.75
Fees, electric meter tests	22.00
Fees, blank forms and maps	217.50
	\$ 33,384.25
Public Service Division:	
Motor Buses:	
Fees, bus permits	\$ 3,270.50
Fees, drivers' licenses	3,094.00
	6,364.50
Miscellaneous:	
Fees, copies of documents	—
Fees, blank forms	\$ 12.00
	12.00
Commercial Motor Vehicle Division:	
Motor Trucks:	
Fees, common carrier certificates	\$ 340.00
Fees, contract carrier permits	20,418.00
Fees, distinguishing plates	31,856.00
Fees, copies of documents	154.10
	52,768.10
Securities Division:	
Fees, registration of brokers	\$32,100.00
Fees, registration of salesmen	17,605.00
Fees, copies of documents	14.70
Miscellaneous sales	2.00
	49,722.70
Rent of Land, Brattle square. Cambridge (Cambridge subway)	4,600.00
Total	\$146,851.55

Financial Statement Verified.

Approved:

GEO. E. MURPHY.
Comptroller.

SPECIAL INVESTIGATIONS

Twenty-three investigations have been made by the Department upon its own motion during the fiscal year ended November 30, 1937, the character of which is shown below:

Electricity, rates and charges	9
Gas, rates and charges	3
Water, rates and charges	1
Motor Trucks, rates and charges	5
Motor Bus, rates of fare	1
Railroads, freight rates	1
Railroads, passenger time-table changes	1
Telephones, rates and charges on hand sets and changes of equipment	2
Total	23

Pursuant to the provisions of section 3 of chapter 333 of the Acts of 1931, and upon notice from the Trustees of the Boston Elevated Railway Company of a deficit in the operation of the railway for the year ending March 31, 1937, the Department has made an investigation of the operations and expenses of the company, and a report (the sixth since the enactment of the statute) will be transmitted to the Governor and to the members of the Metropolitan Transit Council.

Chapter 37 of the Resolves of 1937 provided for a survey and study by a special commission relative to the laws of the Commonwealth relating to the promotion and sale of securities, and certain related matters. A report of the special

commission, of which the Chairman of the Department was a member, has been made to the General Court.

Chapter 60 of the Resolves of 1937 provided for an investigation and study by a special commission relative to certain problems in the Merrimack Valley, so-called, concerning, among other matters, transportation service and facilities, establishment of a sewerage district, purification of the waters of the Merrimack river, water supply and flood control. A report of the special commission, of which William J. Keefe, chief engineer of the Department, was designated a representative of the Commission, has been made to the General Court.

CAPITAL STOCK AND BONDS

Twelve applications for approval of issues of stock, bonds or notes of public utilities were decided during the year which ended November 30, 1937. The par value of securities to the amount of \$22,692,400.00 was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	Capital Stock Approved			Bonds . Approved at Par	Date 1937
	Amount at par	Issue Price	Value at Issue Price		
Boston Consolidated Gas Co.	—	—	—	\$10,900,000 ¹	Jan. 22
Boston Elevated Railway Co.	—	—	—	2,098,000 ²	Jan. 8
Boston Elevated Railway Co.	—	—	—	4,800,000 ²	Sept. 15
Boston Metropolitan District ³	—	—	—	2,098,000	Jan. 8
Boston Metropolitan District ³	—	—	—	4,800,000	Sept. 15
Brockton Gas Light Company	—	—	—	850,000 ¹	Oct. 29
Greenfield Gas Light Company	—	—	—	50,000	Apr. 9
Northern Berkshire Gas Co. ⁴ \$	100	\$100	\$ 100	—	Apr. 26
Northern Berkshire Gas Co. ⁵	4,300	100	4,300	—	Oct. 8
Old Colony Gas Company	—	—	—	590,000 ¹	Feb. 19
Southbridge Water Supply Co.	—	—	—	200,000	July 26
Springfield Gas Light Company	—	—	—	500,000 ¹	June 3
Springfield Gas Light Company	—	—	—	300,000 ¹	July 20
Webster and Southbridge Gas and Electric Company	2,400,000	25	2,400,000	—	Aug. 16

¹ Notes

² Refunded notes.

³ Approved as to maturity and interest rate only.

⁴ To purchase the Deerfield River Electric Company.

⁵ To purchase the Charlemont Electric Light and Power Company.

⁶ To purchase the Worcester Electric Light Company. Name now changed to Worcester County Electric Company.

GAS, ELECTRIC AND WATER UTILITIES

By order of the Department or through the commendable cooperation of officials of companies with the Commission, after many conferences, reductions in the rates and charges of 35 electric companies have been made during the fiscal year, with annual savings to customers estimated as follows:

Domestic customers	\$ 964,659
Commercial customers	845,469
Power and street lighting customers	432,058

Total \$2,242,186

In addition, the rates and charges of 11 gas companies have been reduced during the year with estimated annual savings to customers amounting to \$57,663.

In the field of rural electrification the Commission is able to report substantial as well as significant progress. During the year, over 212 miles of electric lines to rural areas of the state, reaching approximately 1,100 customers, heretofore without service, have been constructed by the various companies whose territory includes such areas. The cost of these extensions amounted to approximately \$334,000, and plans have been prepared or are in preparation for many miles of further extensions in similar districts at an early date.

During the fiscal year 129,184 gas meters have been tested by the Gas, Electric and Water Division, and those found correct were badged and sealed in accordance with the statute. This figure compares with 80,687 meters tested in the previous year, the increase of 48,497 meters tested being due mainly to the replacement periodically of gas meters under the provisions of chapter 259 of the Acts of 1936. Of these 129,184 meters, 773 were tested on complaint either of the customer or of the company, of which 4 would pass gas but would not register while 1 neither passed gas nor registered. The average error of the remaining 768 meters was 1.40 per cent fast as compared to 1.76 per cent fast in 1936. In addition, 8 wet meters, 3 two-foot meter provers, 17 five-foot provers, and 1 ten-foot prover, and 9 calorimeter thermometers have been calibrated for the use of various companies. Owing to the passage of the 1936 act requiring the retesting of all gas meters in service over seven years, 19 new gas meter testing stations have been established and approved for use. Five electric meters have been tested on complaint of customers.

During this period, 295 tests of the quality of the gas supplied by the 49 companies distributing gas in the Commonwealth have been made. Sixteen violations of the legal standards were found and offending companies were warned. Five hundred and seventy-one complaints relating to service, rates, high bills, etc., have been carefully investigated. Of these, 139 were against gas companies, 408 against electric companies and 24 against water companies.

In conjunction with the Engineering Division of the Department investigations and estimates have been made of the cost of the extension of gas, electric and water service, and arrangements completed for many such extensions without formal hearing before the Commission.

A total of 506 accidents have been reported during the fiscal year under the provisions of section 95 of chapter 164 of the General Laws. Of this number, 174 were fatal, 160 being reported as caused by gas and 14 as caused by electricity.

All annual returns required to be filed by gas, electric and water companies were filed with the Department within the time limit prescribed by law, except the annual return of the Lowell Gas Light Company.

MUNICIPAL LIGHTING PLANTS

We herewith set forth a list of municipal plants with percentage earnings, which, from reports filed in 1937 for the year 1936, appear to have violated the provisions of the statute requiring such plants to reduce their rates when they have earned a profit in excess of the 8 per cent allowed by law:

Hingham	9.21%
Norwood	12.39%
Peabody	30.78%

Each of the plants in the above-named municipalities reduced its rates during the period covered by this report.

It also appears that the following municipalities have violated that part of the statute which provides that the town shall include in the annual appropriations and in the tax levy not less than the estimated cost of the gas and electricity to be used by the town. Records of street lighting only are available, and these figures are as follow:

Town	Estimated amount which should have been paid	Town paid only
Ashburnham	\$ 1,493.39	\$ 650.00
Chicopee	33,215.62	31,535.40
Danvers	16,574.06	14,300.00
Georgetown	2,346.47	900.00
Groton	6,689.51	5,500.00
Groveland	3,142.83	1,800.00
Hingham	10,042.38	8,652.04

Hudson	6,136.47	5,000.00
Hull	15,173.97	12,650.00
Merrimae	3,113.58	2,468.72
North Attleborough	8,078.72	5,000.00
Peabody	12,529.74	—
Reading	18,575.42	17,500.00
Shrewsbury	6,224.53	5,500.00
Taunton	36,888.88	32,500.00
Wakefield	19,492.14	18,000.00
Wellesley	20,404.04	16,880.00

ENGINEERING

The Chief Engineer of the Department was designated a representative of the Commission on the special commission established by chapter 60 of the Resolves of 1937 to investigate and study certain problems in the Merrimack Valley. Many conferences and three public hearings were held. A report embodying the result of the investigation and study of the commission, and its recommendations, has been made to the General Court.

The Engineering Division has made an investigation and report to the Commission in connection with the investigation made by the Department, pursuant to section 3 of chapter 333 of the Acts of 1931, of the deficit in the operation of Boston Elevated railway for the year ended March 31, 1937.

The Division has made an examination of plans and specifications for the elimination of three railroad grade crossings by the Department of Public Works during the year.

Investigations and reports have been made to the Department on the capital expenditures and retirements of the following-named companies:

Boston Elevated Railway.
Barnstable County Gas Company.
Buzzards Bay Gas Company.
Brockton Gas Light Company.

Cape and Vineyard Electric Company.
Montaup Electric Company.
Springfield Gas Company.
Greenfield Gas Company.

and plant accounts of 45 companies out of 137 were checked.

A physical valuation was made of the property of the New England Telephone and Telegraph Company in the town of Tewksbury in connection with a rate case pending before the Department.

Reports were made to the Department on 101 proposed bus routes and 6 trackless trolley routes.

During the year, this Division made a special inspection of 103 bridges carrying railroads, street railways or buses. Restrictions were recommended on 11 of these bridges and the discontinuance of the operation of buses and trolley cars over 1 bridge.

Investigations and reports were made relative to the quality of the water at the following-named companies:

Cottage City Water Company.
Holliston Water Company.

Housatonic Water Company.
Hingham Water Company.

In conjunction with the Gas, Electric and Water division, an investigation was made of 63 complaints relative to extensions and other matters requiring engineering assistance.

Assistance was rendered the Attorney General before the Superior Court on a petition for reimbursement of expenditures made on account of the proposed elimination of railroad grade crossing in Leominster and in Northampton on the New York, New Haven, and Hartford Railroad, and on two petitions relative to grade crossings in the towns of Amherst and Belchertown on the Central Vermont Railway.

An examination and computation was made of plans showing alterations in

the structure of the Boston Elevated Railway Company at three different locations in the city of Boston.

During the year, 3,231 rate schedules were filed with the Division.

A special investigation of 260 gas and electric rates filed with the Department was made and reported to the Commission.

An investigation of rates for both the Nantucket Gas and Electric Company and Charlemon Electric Company was made.

At the request of the Department of Mental Diseases, an investigation and report was made to that Department of its power facilities and of a proposed contract for the purchase of electricity from the Gardner Electric Light Company.

RAILROADS AND STREET RAILWAYS

During the fiscal year, the Railroad and Railway Division made 13,225 inspections of railroad rolling stock, including locomotives, passenger and freight cars; 5,223 inspections of street railway cars; 157 inspections of trackless trolley coaches; 1,594 inspections of railroad and railway stations; 2,115 inspections of railroad and street railway bridges; 149 inspections of railroad signals, crossing signals and interlockings. In addition, switches and derails, foot blockings, bridge guards, and crossing signs were inspected. Defective conditions were called to the attention of the proper officials of the companies and corrections made.

The Division investigated 183 accidents on railroads and 188 on street railways, and was represented at 22 inquests. One hundred and fifty-four complaints relating to the operation of railroads and railways were investigated and adjusted.

The Division issued 49 railroad police licenses, 19 railway police licenses and 25 steamship police licenses.

Effective November 5, 1937, the Division of Railway and Bus Utilities was established as the Division of Railroad and Railway Utilities, and the duties in relation to the supervision and inspection of motor buses heretofore performed by the Division of Railway and Bus Utilities were assigned to the Commercial Motor Vehicle Division.

The Department, upon its own motion, investigated and held public hearings in the matter of the curtailment and abandonment of passenger service on the Old Colony system of The New York, New Haven and Hartford Railroad Company proposed to be made in its time tables, effective September 26, 1937.

As a result of its investigation the Commission required a considerable portion of the service restored. Since that time the Trustees of the company have filed with the Department petitions for approval of the abandonment of many passenger stations upon its lines and the consequent curtailment of passenger service thereat. These petitions have been assigned for hearing and determination early in 1938.

The following table shows in detail the number of persons killed and injured at railroad grade crossings during the fiscal year ended November 30, 1937:

ACCIDENTS AT GRADE CROSSINGS DURING THE YEAR ENDING
NOVEMBER 30, 1937

RAILROADS	Protected Crossings				Unprotected Crossings			
	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings
Boston & Albany	70	—	—	—	83	1	—	1-83
Boston & Maine	433	1	2	1-144	233	1	—	1-233
Boston, Revere Beach & Lynn ..	12	—	—	—	0	—	—	—
Hoosac Tunnel & Wilmington ..	6	—	—	—	2	—	—	—
Central Vermont	7	—	—	—	39	1	—	1-39
New York, New Haven & Hartford	410	—	3	1-137	287	2	5	1-41
Fore River	5	—	—	—	0	—	—	—
Grafton & Upton	0	—	—	—	34	—	—	—
Totals	937	1	5	1-156	678	5	5	1-68

Total number of grade crossing accidents	26
Number involving automobiles	23
Number involving pedestrians	3
Number where employees were injured	1

TELEPHONE AND TELEGRAPH

On November 30, 1937, there were 869,193 telephone stations in Massachusetts, a net gain of 32,671 stations over the preceding year.

During the year mileage charges have been reduced by base rate area extensions in Braintree, Holyoke, Leicester and Springfield. The Worcester Exchange Boundary has been extended into the Leicester Exchange and the Stoughton Exchange boundary extended into the Brockton Exchange. These changes affected 133 subscribers with a net annual saving to them of \$790.

On March 1, 1937, the hand set charge of 15 cents per month was eliminated for subscribers who had used such set for eighteen months. The number of subscribers affected was 94,100, with a decrease in net charges to customers of \$169,400. On October 1, 1937, the Commission abolished the monthly hand set charge of 15 cents which affected 143,000 subscribers, with a reduction of customer charges of approximately \$251,500.

The Commission in its order of September 28, 1937, reduced the change of equipment charge from \$2 to \$1.40. It is difficult to estimate general savings to subscribers in this particular reduction as there is no definite method of establishing the number of requests for changes of equipment during the ensuing year.

A reduction from \$2 to \$1.25 was made in the rate for station amplifier equipment for persons with impaired hearing, or a saving of approximately \$5,000 per year for 556 subscribers.

Season service charges which had been applied to customers within the base rate area of the Pittsfield Exchange at Pontoosuc Lake were eliminated as of June 20, 1937, with an estimated saving of \$300.

There were 491 complaints during the past year. Many of these required intensive study and investigation by the Telephone and Telegraph Division. These surveys resulted in various changes in base rate areas and several improvements in the service.

MOTOR BUS TRANSPORTATION

At the close of the fiscal year there were 77 persons, associations and corporations (including street railway companies) operating motor vehicles within the Commonwealth for the carriage of passengers for hire under certificates of public convenience and necessity granted by the Department. Sixty-six certificates, mainly for extensions of or changes in existing routes, have been issued during the year. There also have been issued 327 bus permits and 4,047 special drivers' licenses for which fees aggregating \$6,364.50 have been received.

During the year 7,437 inspections of buses and 1,097 inspections of highway bridges over which buses operated have been made, and 81 accidents and 89 complaints have been investigated. Operating violations, 69 in number, have been noted and corrected.

On November 5, 1937, pursuant to a vote of the Commission, the duties of supervising and inspecting motor buses, heretofore performed by the Railway and Bus Division, were assigned to the Commercial Motor Vehicle Division.

MOTOR TRUCK TRANSPORTATION

Chapter 33 of the Resolves of 1937 provided for a survey and study by a special commission of the laws of the Commonwealth relating to the transportation of property by motor vehicle. The commission consisted of eleven members, including the Director of the Commercial Motor Vehicle Division, and a report of its investigation and recommendations have been made to the General Court.

Patrick J. Sullivan, Assistant Director of the Commercial Motor Vehicle Di-

vision, resigned his office August 26, 1937, to accept appointment as a member of the Labor Relations Board. The vacancy caused by the resignation of Mr. Sullivan has been filled by the appointment, on August 27, 1937, of David J. McCarthy, of Medford.

Pursuant to a vote of the Commission, effective November 5, 1937, the duties of supervising and inspecting motor buses were assigned to the Commercial Motor Vehicle Division.

There were registered with the Division at the close of the fiscal year ended November 30, 1937, under the provisions of law regulating the operation of motor vehicles transporting property for hire, 919 common carriers, 8,560 contract carriers and 2,808 interstate contract carriers. During the year fees amounting to \$20,758 have been received by the Department covering applications filed for certificates as common carriers, including amendments of original certificates, and permits as contract carriers, including amendments of original permits. In addition, fees received by the Department for distinguishing plates aggregated \$31,856.

During the year 69 hearings have been held by the Division at Boston and other cities in the Commonwealth on 573 applications for permits as contract carriers, and 22 applications were denied. Thirty-seven hearings have also been held on complaints filed with the Division relating to violations of provisions of the motor truck act and the rules and regulations adopted by the Department thereunder. The permits of 9 contract carriers were revoked, and 3 permits were suspended. During the fiscal year 7 appeals from decisions of the Division have been filed with the Commission.

The difficult and complicated matter of proper rates of both common and contract carriers has required much investigation and study by the Commission during the year. Many hearings and conferences have been held on the subject and the Commission has, during this period, prescribed commodity rates for common carriers and minimum rates for contract carriers applying to the transportation of candy, petroleum products, boots and shoes and wool between points within the Commonwealth by motor vehicles.

SALE OF SECURITIES

John H. Backus, of New Bedford, was appointed Director of the Securities Division to succeed John C. Hull, and assumed the duties of his office December 15, 1936.

During the fiscal year 645 brokers and 3,512 salesmen have been registered in the Securities Division. In the same period the sale in the Commonwealth of securities having an aggregate par value of \$64,150,450 has been forbidden. Since the effective date of the Sale of Securities Act (August 26, 1921), the sale of securities aggregating more than \$3,064,000,000 par value has been prohibited. Seventy-three formal hearings have been held by the Director of the Division during the year arising in connection with sales of securities or the manner in which brokers and salesmen conducted their business. Twenty-nine appeals from the orders and findings of the Division were filed with and acted upon by the Commission during the year. The registration of 11 brokers and 70 salesmen was cancelled by request of the registrants, and the registration of 10 brokers and 12 salesmen was cancelled by orders of the Division after notice and hearing. In addition, the registration of 193 salesmen was cancelled for failure to file with the Division change of employing broker, and the registration of 3 salesmen was suspended while the applications for registration of 7 salesmen were denied after a hearing.

Approximately 1,342 complaints against brokers and salesmen were investigated by the Division. Six cases were referred to the Attorney General under the provisions of section 20 of the Sale of Securities Act during the year.

SMOKE ABATEMENT

During the year ended November 30, 1937, 351,325 observations were made.

Violations were noted in 968 cases. In many instances, the adoption of suggestions made by the Division of Smoke Inspection resulted in improved combustion and a consequent decrease in the number of violations. Ten formal hearings were held and 5 formal orders issued during the year. Court proceedings were brought against 4 companies. One hundred and seventy-three complaints have been filed and investigated, an increase of 32 in the number filed during the preceding year.

RECOMMENDATIONS FOR LEGISLATION

Sale of Securities Act:

We renew our recommendation of the last three years, that the word "security" should be defined to include mineral deeds conveying fractional interest in minerals or oils, and we repeat what was said in the Department's recommendations for legislation in 1934, as follows:

Many persons in this Commonwealth have been engaged in the sale of mineral deeds conveying fractional interests in the minerals or oil under the ground. There has been some conflict of opinion as to whether these mineral deeds are within the purview of the Sale of Securities Act. On April 16, 1934, in the Suffolk Superior Court it was ruled by the presiding justice that certain mineral deeds did not constitute securities within the meaning of the Sale of Securities Act. We see no reason why these mineral deeds should not be included in the term "security" when oil, gas and mining leases and certificates of interest in or under the same are all included under the term "security" in the act. There is little or no distinction between the two, and the evil of the indiscriminate sale of the one is the same as in the other.

Commercial Motor Vehicles:

The transfer of a distinguishing plate, prescribed and furnished by the Department for motor vehicles operated in the conduct of the business of transporting property for hire, is prohibited by law except upon the authority and consent of the Department. During the past fiscal year 1,442 applications were filed with the Commercial Motor Vehicle Division for the transfer of plates. It is not free from doubt whether or not the law makes provision for the payment of a fee for such transfer, and the making thereof imposes a considerable amount of additional clerical work upon the Division, and in the opinion of the Commission justifies the charging of a moderate fee. Consequently, we recommend the passage of legislation requiring the payment to the Department of a fee of 50 cents for each transfer of a distinguishing plate from one vehicle to another.

Railroad Grade Crossings:

Section 142 of chapter 160 of the General Laws provides for the placing and maintaining of warning signs on a public way where the way crosses the tracks of a railroad at grade. The section prescribes not only the type and location of the signs, but also the color and marking of the discs. The Department, in connection with matters relating to protection at railroad grade crossings, has, in several situations, believed that reflector buttons on warning signs would be desirable as a safety factor. Other occasions may arise where reflector buttons, in the judgment of the Commission, should, in the public interest, be added to the yellow discs of the signs.

In view, however, of the specific language of section 142 noted above, we doubt the authority of the Department to require the adding of reflector buttons to the discs without amendment of the law. Consequently, we recommend an amendment of section 142 of chapter 160 of the General Laws, giving the Department discretionary power to require that warning signs on any public way where the way crosses the tracks of a railroad at grade be equipped with reflector buttons.

Smoke Inspection:

At the suggestion of the Director of the Division of Smoke Inspection we recommend an amendment to chapter 651 of the Acts of 1910, as amended by

chapter 50 of the Acts of 1915. The purpose of this amendment is to place an additional restraint on the emission of smoke from stacks defined under said act as falling under class two.

The present act authorizes a greater emission of dense smoke by stacks falling under class two than from those falling under either class one or class three, as defined by the act. We are at a loss to see why this distinction is made.

Fees for Testing Gas Meters:

The fees for testing gas meters remain substantially the same as established in 1861, notwithstanding the fact that important changes have been made in the manufacture of gas meters. Changes have been made in all meters, even the five-light meter which formerly had a capacity of 30 cubic feet per hour and which now has a capacity of 150 to 175 cubic feet per hour. Larger dry meters have been made with capacities up to 10,000 cubic feet per hour. There has been presented to the Department for testing and sealing a so-called rotary displacement meter which has a capacity of some 9,000 cubic feet per hour, and which takes some hours to set up and test, but for which test a fee of but 25 cents can be legally collected.

For these reasons a change in the calculation of the fees should be established by rules of the Department.

In the case of electric meters (section 121, chapter 164 of the General Laws) "the department may establish such rules and regulations, fix such standards, prescribe such fees, and employ such means and methods in, and in connection with, such examinations and tests of electric meters as it deems most practicable, expedient and economical," and the Department recommends that the same method be adopted in connection with the fees for testing gas meters.

Commissioner Curley, owing to his serious illness, has been unable to participate in the preparation of this report.

Respectfully submitted,

J. BURKE SULLIVAN, *Chairman*,
LEO H. LEARY,
RICHARD D. GRANT,
A. C. WEBBER,

Commissioners.



MASS.
DOCS.
COLL.

The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

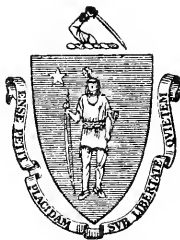
Commission

OF THE

Department of Public Utilities

FOR THE

Year Ending November 30, 1938



DEPARTMENT OF PUBLIC UTILITIES ANNUAL REPORT

Boston, January 12, 1939.

*To the Honorable Senate and House of Representatives
in General Court Assembled:*

We respectfully submit the Nineteenth Annual Report of the Commission of the Department of Public Utilities for the fiscal year ended November 30, 1938.

J. Burke Sullivan was appointed a Commissioner and designated as Chairman of the Department by Governor Charles F. Hurley on December 8, 1937. Mr. Sullivan resigned, effective August 3, 1938, to accept a position as Assistant Attorney General of the Commonwealth.

Francis M. McKeown was appointed Commissioner and designated as Chairman of the Department by Governor Charles F. Hurley on August 3, 1938, and took the oath of office on August 10, 1938.

The Commission, on December 15, 1937, appointed former Commissioner Leonard F. Hardy as Secretary of the Department to fill the vacancy caused by the death of Andrew A. Highlands.

RETURNS

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads	22	Electric companies	43
Street railways	19	Water companies	81
Telephone companies	14	Motor bus lines	6
Telegraph companies	3	Municipal lighting plants	41
Steamboat companies	2	Manufacturing and other companies doing an electric business	4
Sleeping car companies	1	Voluntary associations	19
Express companies	3	Affiliates of gas and electric companies	4
Gas companies	45		
Total			365

In addition to the above there are under the jurisdiction of the Department 921 common carriers and 11,966 contract carriers operating motor vehicles for the transportation of property for compensation within the Commonwealth.

During the year the Commission held 761 formal hearings and many conferences. The volume and character of the work requiring the Department's attention during the fiscal year are shown by the following tabulation:

Petitions and Applications: Railroad, 219; street railway, 67; gas and electric, 118; water, 7; motor bus, 131; motor truck, 92; telephone and telegraph, 5; steamboat, 6; sale of securities, 28; miscellaneous, 10; total, 683.

Complaints: Railroad, 140; street railway, 6; gas, 158; electric, 512; water, 51; motor bus, 51; motor truck, 367; telephone and telegraph, 726; steamboat, 2; sale of securities, 1391; smoke abatement, 157; total, 3561.

Rate Schedules: Railroad, freight service, 1581; passenger service, 281; express, 118; street railway, 49; telephone, 27; motor bus, 77; motor truck, 248; electricity, 92; gas, 73; water, 4; gas and electric contracts, 285; total tariffs, 2833.

The appropriation for the Department and its expenditures for the fiscal year ended November 30, 1938, are given below:

Appropriations	\$383,224.97
Expenditures	331,025.90
Balance	\$ 52,199.07

The receipts of the Department for the same period are shown in the following itemized statement:

Gas, Electric and Water Division:		
Fees, gas meter tests	\$28,932.45	
Fees, electric meter tests	48.00	
Sales, blank forms and classification of accounts....	176.75	\$29,157.20
Public Service Division:		
Motor Busses:		
Fees, bus permits	\$ 1,864.00	
Fees, drivers' licenses	3,341.00	5,205.00
Miscellaneous:		
Fees, copies of documents	\$	
Sales, blank forms	21.40	21.40
Commercial Motor Vehicle Division:		
Motor Trucks:		
Fees, common carrier certificates	\$ 350.00	
Fees, contract carrier permits	7,906.00	
Fees, brokers' licenses	120.00	
Fees, distinguishing plates	27,632.00	
Fees, copies of documents	105.50	
Miscellaneous	3.00	36,116.50
Securities Division:		
Fees, registration of brokers	\$33,200.00	
Fees, registration of salesmen	16,070.00	
Fees, copies of documents	12.00	49,282.00
Rent of Land, Brattle square, Cambridge (Cambridge subway).....		5,100.00
Miscellaneous:		
Reimbursement for damage to state car		6.00
Refunds on account of prior years		19.50
Postage, etc.		1.59
Total		\$124,909.19
Financial statement verified.		
Approved:		

GEO. E. MURPHY.
Comptroller.

SPECIAL INVESTIGATIONS

Forty-six investigations have been made by the Department upon its own motion during the fiscal year ended November 30, 1938, the character of which is shown below:

Electricity, rates and charges	5
Gas, rates and charges	8
Water, rates and charges	1
Motor trucks, rates and charges	2
Motor bus, rates of fare	4
Railroads, freight rates	1
Railroads, passenger time-table changes	20
Telephone, rates and charges	2
Miscellaneous	3
Total	46

Pursuant to the provisions of section 3 of chapter 333 of the Acts of 1931, and upon notice from the Trustees of the Boston Elevated Railway Company of a deficit in the operation of the railway for the year ending March 31, 1938, the Department has made an investigation of the operations and expenses of the company, and a report (the seventh since the enactment of the statute) will be transmitted to the Governor and to members of the Metropolitan Transit Council.

Chapter 35 of the Resolves of 1938 provided for an investigation by the Department relative to the maintenance of gates or electric signals or the stationing of flagmen at certain railroad grade crossings. A report of the Department relative to the subject matter of this resolve has been made to the General Court.

Chapter 59 of the Resolves of 1938 provided for an investigation by the Department relative to providing relief in the City of Quincy and the Town of Weymouth against the discharge of cinders, ashes or other solids from buildings in which boilers or induced draft is used. A report of the Department relative to the subject matter of this resolve has been made to the General Court.

In accordance with the provisions of section 5 of Chapter 483 of the Acts of 1938, the Department has made an investigation relative to the business of leasing trucks and motor vehicles to motor carriers and a report relative to the same has been made to the General Court.

CAPITAL STOCK AND BONDS

Eight applications for approval of issues of stock, bonds or notes of public utilities were decided during the year which ended November 30, 1938. The par value of securities to the amount of \$7,277,700 was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	Capital Stock Approved			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Barnstable Water Co.....	—	—	—	\$ 35,000	Jan. 21
Cape & Vineyard Electric Co...	\$500,000	\$50	\$1,000,000	1,000,000	Jan. 21
Fall River Electric Lt. Co.	—	—	—	2,000,000 ¹	Apr. 1
Lawrence Gas & Elec. Co.	—	—	—	1,500,000	June 10
N. Bedford Gas & Edison Lt. Co.	—	—	—	1,000,000 ²	Apr. 22
Pittsfield Coal Gas Co.	—	—	—	500,000 ²	Mar. 17
United Electric Light Co.	131,875	25	131,875 ³	—	Dec. 10
Worcester Suburban Elec. Co...	610,825	25	610,825 ⁴	—	Apr. 20

¹ Refunding bonds. ² Coupon notes.

³ Issued to acquire outstanding stock of Agawam Electric Company and Ludlow Electric Company.

⁴ Issued to acquire capital stock and all assets and property of the Marlborough Electric Company.

All annual returns required to be filed by gas, electric and water companies were filed with the Department within the time limit prescribed by law.

MUNICIPAL LIGHTING PLANTS

We herewith set forth a list of municipal plants with percentage earnings, which, from reports filed in 1938 for the year 1937, appear to have violated the provisions of the statute requiring such plants to reduce their rates when they have earned a profit in excess of the 8 per cent allowed by law:

North Attleborough	9.43%
Norwood	9.39%
Peabody	21.68%
South Hadley	9.75%

Of the above mentioned plants, the Norwood plant has reduced its rate in 1938.

It also appears that the following municipalities have violated that part of the statute which provides that the town shall include in the annual appropriations and in the tax levy not less than the estimated cost of

the gas and electricity to be used by the town. Records of street lighting only are available, and these figures are as follows:

Town	Estimated amount which should have been paid	Town paid only
Ashburnham	\$ 1,518.71	\$ 650.00
Danvers	16,153.93	14,000.00
Groveland	3,651.62	3,000.00
Hudson	6,158.50	4,999.92
Hull	13,156.33	12,600.00
Merrimac	3,274.91	2,728.27
North Attleborough	8,932.19	5,000.00
Peabody	13,095.02	None
Princeton	922.11	511.00
Reading	15,682.79	14,500.00
Shrewsbury	6,252.24	5,500.00
Wakefield	19,900.01	18,000.00

GAS, ELECTRIC AND WATER UTILITIES

The recession which began in the late summer of 1937 and continued through the past year affected the revenues of the electric companies in the Commonwealth to such an extent that few reductions in rates and charges were made. The hurricane in September resulted in the loss of considerable revenue as thousands of customers were without service for periods of two weeks in many instances. Many millions of dollars were also spent by the companies in repairing the damage caused by the hurricane.

The rates and charges of 14 electric companies were reduced in 1938 by order of the Department or voluntarily by the companies, with estimated annual savings to customers of \$177,650. The following table shows the extent of the estimated annual savings from rate reductions based upon the previous year's use in each instance, since 1933:

1933	\$1,479,360	1935	\$2,823,502	1937	\$2,052,086
1934	\$1,565,485	1936	\$1,263,423	1938	\$ 177,650

or an aggregate estimated savings for the six-year period amounting to \$9,361,506.

Some gas companies made revisions in their rates and charges during the year, some of which represented reductions.

At the present time some portion of each community in the Commonwealth is being served with electricity and every year records an advance in rural construction. It is estimated that the electric light companies of the Commonwealth have constructed some 150 miles of new lines during the past year, reaching especially into territory never before served, and sparsely settled.

During the fiscal year, 113,859 gas meters have been tested by the Gas, Electric and Water Division and those found correct were badged and sealed in accordance with the statute. This figure compares with 129,184 tested in the previous year. Of these 113,859 meters, 827 were tested on complaint either of the consumer or of the company, of which four would pass gas but would not register. The average error of the remaining 823 was 1.4 per cent fast, the same percentage as the previous year. In addition, 10 wet meters, 5 five-foot meter provers, and 18 calorimeter thermometers were calibrated for the use of the various companies.

Seven electric meters have been tested on complaint of either the consumer or of the electric company.

During this period 514 tests of the quality of the gas supplied by the 49 companies distributing gas in the Commonwealth have been made. Forty-five violations of the legal standard were found and the offending companies duly notified that steps must be taken at once to improve

conditions. The average calorific value of all companies having a standard of 528 British thermal units was 537 British thermal units.

The 721 complaints relating to supply, service, rates, etc., have been carefully investigated and in most cases settled satisfactorily to all concerned. Of these, 158 were against gas companies, 512 against electric companies and 51 against water companies. The numerous complaints regarding lack of service after the hurricane of September 21 have not been included in the above number.

A total of 790 accidents have been reported during the fiscal year under the provisions of section 95 of chapter 164 of the General Laws (Ter. Ed.). Of this number, 144 were fatal, 134 being reported as caused by gas and 10 as caused by electricity. It is worthy of note that but 3 fatal accidents were reported as being caused by electricity during the terrific hurricane of September. Restoration of service was remarkably rapid considering the havoc wrought by falling trees which in practically all instances were the cause of falling poles and wires on the distribution and service lines. In the central and western portion of the State, flood waters caused by a deluge of rain added to the confusion.

Many requests for electric extensions, especially in rural areas, have been received and in conjunction with the Engineering Division investigated and estimates made of the costs of supplying service. Arrangements have usually been completed for such extensions, with the cooperation of the companies and complainants, without the necessity of a formal hearing before the Commission.

ENGINEERING

During the year, two engineers were permanently added to the staff of Engineers, namely, Paul M. Fitzsimmons as Assistant Rate Engineer and Richard A. Sullivan as Junior Electrical Engineer.

Early in the year, the Governor appointed the Chairman of this Department as Chairman of a special commission, and two others, namely, the Bank Commissioner and the Chairman of the State Planning Board, to study the feasibility and advisability of extending the Rapid Transit System of the Boston Elevated Railway out and over the present rights of way of the Railroads entering Boston, for a distance of approximately 10 miles. There being no money available in the Department to study this project, application was made to the Federal authorities and, after many conferences, we were given to understand that a grant would be given us to conduct a traffic survey with Works Progress Administration funds. Much time and energy was then devoted to studying this project and the application is now ready to go forward to procure these funds for a traffic survey only. Upon the traffic study will depend whether we should go forward with engineering studies of: (1) The present railroad facilities; (2) Plans for converting the railroad rights of way so that rapid transit facilities might be added to the present systems; (3) Estimates of the cost of constructing the proposed extensions in order to find out the amount necessary to finance these projects; and finally, if it is deemed prudent and that public convenience requires such rapid transit extensions, action by the legislature will be required.

Many days were devoted to acting as a Joint Board Member for the Interstate Commerce Commission on hearings relative to the transportation of passengers and property for hire over the highways of this Commonwealth, in accordance with the Motor Carrier Act of 1935.

In accordance with Chapter 333 of the Acts of 1931, the Division has investigated and made special reports on the savings that might be effected in operating expenses on the Boston Elevated Railway for the year ending March 31, 1938.

During the year the plant accounts of the following companies, which were filed under order of the Department (D. P. U. 4980) have been checked:

Berkshire Street Railway Company.
 Boston Elevated Railway.
 Eastern Massachusetts Street Railway Company.
 Springfield Street Railway Company.
 Union Street Railway Company.
 Worcester Street Railway Company.
 Arlington Gas Light Company.
 Boston Consolidated Gas Company.
 Dedham and Hyde Park Gas & Electric Company.
 Fall River Gas Works Company.
 Lowell Gas Light Company.
 Malden and Melrose Gas Light Company.
 Northampton Gas Light Company.
 North Shore Gas Company.
 Old Colony Gas Company.
 Pittsfield Coal Gas Company.
 Worcester Gas Light Company.
 Boston Edison Company.
 Brockton Edison Company.
 Cape and Vineyard Electric Company.
 Ludlow Electric Company.
 Plymouth County Electric Company.
 Auburn Water Company.
 Barnstable Water Company.
 Chatham Water Company.
 Cohasset Water Company.
 Dedham Water Company.
 Edgartown Water Company.
 Hingham Water Company.
 Holliston Water Company
 Housatonic Water Company
 Grafton Water Company
 Millbury Water Company
 Oxford Water Company.
 Sheffield Water Company
 Sunderland Water Company
 Wannacomet Water Company.
 Williamstown Water Company.
 Salisbury Water Supply Company

On 12 of the above companies, in addition to checking the accounts, the property has been inspected.

The property of the Fitchburg and Leominster Street Railway Company has been investigated in connection with the transfer of the park property (D. P. U. 5623).

A physical valuation has been made of the following water companies:

Grafton Water Company	(D. P. U. 5624)
Millbury Water Company	(D. P. U. 5624)
Oxford Water Company	(D. P. U. 5624)
Gilbertville Water Company	D. P. U. 5673)

A valuation of the Salisbury Water Supply Company was in progress at the end of the year.

Investigated and reported to the Department on 77 proposed bus routes and on two trackless trolley lines.

Bridges carrying trolley cars and buses to the number of 87 have been inspected. On 5 of these, restrictions as to loads were recommended.

Plans of a new bridge over which we restricted operation in 1937, on Revere Street, Revere, over the Boston & Maine Railroad were examined and approved.

In conjunction with the Gas, Electric and Water Utility Division, investigations were made of 45 complaints relative to electric light extensions and other matters requiring engineering assistance.

Investigation was made of a highway crossing at grade of the Fore River Railroad Company in Quincy and a report was submitted to the Department.

A study was made, together with recommendations, to the Department of Mental Diseases in regard to proposed generation by them or the purchase of electricity for three of its hospitals, namely: Northampton State Hospital, Grafton State Hospital and Gardner State Hospital.

A special study was made of the trackless trolley lines of the Boston Elevated Railway Company.

Investigation was made of 2 water systems which should report to the Department.

Investigation was made of 2 complaints of whistling of railroads at grade crossings. Ten crossings were involved.

Investigation was made of the Housatonic Water Company in connection with an order of the Department (D. P. U. 5490).

An investigation and report was made in regard to the proposed relocation of poles on the State Reservation in Carver and Plymouth (D. P. U. 5627).

A special investigation was conducted in connection with petitions concerning a transmission line of the Brockton Edison Company (D. P. U. 5478).

Worked in connection with the Department of Public Works on the priority list of grade crossings to be eliminated.

Made investigation and worked on maps and other data in connection with the abandonment of service of the New York, New Haven and Hartford Railroad.

Made an appraisal and investigated the proposed purchase by the Amesbury Electric Company of the hydro-electric plants of the Merrimac Valley Power and Buildings Company (D. P. U. 5556).

Planned and carried out changes and other work in connection with moving of the Department from Public Works Building at 100 Nashua Street to the State House.

Performed miscellaneous work on maps and plans and the reclassification and filing of engineering data, reports and plans.

During the year, 2,833 tariffs, schedules of rates and contracts were filed with the division—divided as follows: Railroad freight service, 1,581; express, 116; passenger service, 281; street railway, 49; telephone, 27; motor bus, 77; motor truck, 248; electric, 92; gas, 73; water, 4; gas and electric contracts, 285. All the gas and electric rates were examined in detail and reports made to the Department.

Permission was granted to 143 petitioners to file certain rates on less than statutory notice and also, 25 petitions for approval of domestic gas and electric rates were presented and granted.

There were special studies and investigations of rates conducted pertaining to:

Haverhill Gas Light Company.

Webster & Southbridge Gas & Electric & Worcester Electric Consolidation.

Worcester Suburban Electric Company & Marlboro Electric Consolidation.

Taunton Gas Light Company.

Boston Consolidated Gas Company.

Salem Electric Lighting Company.

Malden Electric Company.

Grafton Water Company.

Millbury Water Company. } Consolidation

Oxford Water Company. }

Firestone Tire & Rubber Company.—Special Contract.

There were also 103 complaints received relative to rates and tariffs which were investigated and answered invariably to the complainants' satisfaction.

There has been a great amount of work accomplished in connection with the motor carriers, particularly as a result of amending Chapter 159B by Chapter 483 of the Acts of 1938. The rules in effect concerning the form and filing of motor carrier tariffs were inadequate to satisfy the requirements of the new law. Accordingly, the rules and regulations for the form and filing of tariffs, contracts and schedules by motor carriers were enlarged and completely revised.

There have been held 81 conferences with regular route motor common carriers relative to their rates and the filing thereof.

Much time was spent in preparing a schedule of charges for the transportation of lumber by motor carriers and the existing prescribed minimum rates on candy, petroleum and wool were reviewed, revised and reprinted.

RAILROADS AND STREET RAILWAYS

During the fiscal year, the Railroad and Railway Division made 12,748 inspections of rolling stock, including locomotives, passenger and freight cars; 4,372 inspections of street railway cars, 257 inspections of trackless trolley coaches, 1,561 inspections of railroad and railway stations; 1,973 inspections of railroad and street railway bridges; 2 inspections of railroad signals and interlockings; 1,328 inspections of grade crossing protection.

In addition, switches and derails, foot blocking, bridge guards, and crossing signs were inspected. Defective conditions were called to the attention of the proper officials of the companies and corrections made.

The division investigated 155 accidents on railroads and 183 on street railways, and was represented at 14 inquests. Also 146 complaints relating to the operation of railroads and railways were investigated and adjusted, and 54 special investigations were conducted.

The division issued 9 railroad police licenses, 25 railway police licenses and 1 steamship police license.

The division conducted a survey of the New York, New Haven and Hartford Railroad in connection with petitions filed by that railroad with the Department, for abandonment of 88 stations and the curtailment or abandonment of certain passenger service. The result of this survey was introduced as evidence by the Department of the Attorney General, which represented the public at the hearings held before the Commission.

As result of a disagreement between the Service Bus Lines, Inc., and the Boston Elevated Railway Company, the division conducted a passenger survey of the Service Bus Lines, Inc. The survey resulted in a satisfactory agreement to both parties.

Eighteen petitions were filed in November and December, 1937, and January, 1938, by the Trustees of The New York, New Haven and Hartford Railroad Company seeking the approval of the Commission to the abandonment of passenger service at 88 stations in southeastern Massachusetts. Subsequently, a new time-table, proposed to be made effective March 27, 1938, was issued by the railroad. As this time-table provided for drastic curtailment of passenger train service, the Department entered upon an investigation upon its own motion as to the propriety of the proposed changes and upon said investigation and upon complaints filed with the Department, the Commission joined the hearings as to the propriety of the changes shown in the proposed time-table with the petition for abandonment of stations and all were heard together.

Seventeen days were devoted to hearings in the matter of said petitions, investigations and complaints. On July 28, 1938, the Department, acting

upon one of the petitions filed by the Trustees of said Railroad, issued an order requiring the railroad to operate a gas and electric rail car on weekdays from Yarmouth to Provincetown in the forenoon and from Provincetown to Yarmouth in the afternoon, and the gas and electric rail car stop to admit passengers to board or alight at certain stations between said towns. From this order the railroad appealed to the court, where proceedings are now pending. As the present issue involves the jurisdiction of the Department, action upon several petitions and complaints pending before the Department have been deferred until the decision of the court has been handed down in the matter of the said appeal.

ACCIDENTS AT GRADE CROSSINGS DURING THE YEAR ENDING
NOVEMBER 30, 1938

RAILROADS	Protected Crossings				Unprotected Crossings			
	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings
Boston & Albany R. R.....	67	—	—	—	84	—	—	—
Boston & Maine R. R.....	444	4	2	1-74	213	1	5	1-36
Boston, R. Beach & L. R. R.....	11	—	—	—	—	—	—	—
Hoosac Tun. & Wilmington.....	—	—	—	—	2	—	—	—
Central Vermont Ry.....	7	—	—	—	38	—	—	—
N. Y., N. H. & H. R. R.....	421	8	6	1-30	227	5	3	1-28
Fore River.....	5	—	—	—	—	—	—	—
Grafton & Upton.....	—	—	—	—	34	—	—	—
Totals	955	12	8	1-48	598	6	8	1-43

GRADE CROSSING ACCIDENTS INVESTIGATED

Number involving motor vehicles	57
Number involving pedestrians	6
Number employees injured	1
Number bicycle riders injured	1
Total accidents	65

MOTOR BUS TRANSPORTATION

At the close of the fiscal year, there were 75 persons, associations or corporations (including street railway companies) operating motor buses within the Commonwealth for the carriage of passengers for hire under a certificate of public convenience and necessity granted by the Department. There were issued 190 bus permits, and 4,066 drivers' licenses for which fees aggregating \$5,936 have been received.

During the year, 7,160 inspections of buses and 972 inspections of highway bridges over which buses operate have been made; and 57 accidents and 51 complaints have been investigated. Operating violations, 73 in number, have been noted and corrected. Defective conditions were called to the attention of the proper officials of the companies and corrections made.

MOTOR TRUCK TRANSPORTATION

The Recess Commission, organized under the provisions of Chapter 33 of the Resolves of 1937, recommended to the General Court that Chapter 159B be further amended in order to more effectively regulate the transportation of property by motor vehicle upon the ways of the Commonwealth. Subsequently, an act was passed which became Chapter 483 of the Acts of 1938, effective July 5, 1938.

The provisions of this Act require in part that the Department review all existing contract carrier permits granted under chapter 159B of the General Laws and in effect at the time of the taking effect of Chapter 483 of the Acts of 1938, for the purpose of classifying said permits and determining whether the services rendered thereunder constitute the service of a common carrier by motor vehicle or contract carrier by motor vehicle,

and shall issue without charge certificates or permits or both to the holders of such existing contract carrier permits in accordance with the nature of said services and consistent with its findings, and that interstate contract carriers holding contract carrier permits shall receive in lieu thereof an interstate license.

Under the Act of 1934 there were issued 921 regular route common carrier certificates and 11,966 contract carrier permits. All the existing contract carrier permits were required to be reviewed and reclassified under the new law. The Commission designated this division to conduct this reclassification. In compliance, therewith, twenty days of hearings have been held in the principal cities of the Commonwealth at which 1,200 carriers were interviewed in connection with their reclassification. There have been issued in conjunction therewith 3,278 temporary irregular route common carrier certificates, 511 contract carrier permits and 822 licenses for exclusive interstate operation.

The law further provides that those who, for compensation, sell or offer for sale transportation services shall be known as "Brokers" and as such shall procure a license from the Department. Twelve applications for "Brokers" licenses have been received.

The new Act provides that a single distinguishing plate shall be displayed on each vehicle used in the conduct of the business and that the annual charge for each such plate shall be \$5, as compared to a charge of \$1 per plate under the old law. The responsibility for the issuance of these plates rests with this division. During the past year 26,646 distinguishing plates were issued to all carriers.

Chapter 483 definitely enlarges the scope and authority of the Department to investigate the operations of various classes of carriers. During the year under both acts, there were recorded 367 complaints. Of this number 216 required special investigation. Of these complaints 231 were occasioned by the failure of carriers holding certificates and permits to make returns on C.O.D. shipments, in accordance with the rules of the Department. Further, there were 136 complaints relative to the violation of rates of carriers operating without permits or plates and necessitating 16 hearings before the Director.

The Interstate Commerce Commission Motor Carrier Act of 1935, under Section 205, provides for the establishment of joint boards; the membership of such Boards to consist of members of the Commission or employees of the various state boards designated or appointed by the members of the State board. These joint boards are to act for the Interstate Commerce Commission in cases where an applicant appearing before the Board operates in two or more states. There was held during the year 119 such joint board public hearings pertaining to the transportation of property or passengers by motor vehicles at which the Department was represented.

During the year, there was received in fees by the division—\$27,632 for the issuance and transfer of distinguishing plates; \$7,906 for contract carrier permits; \$350 for common carrier certificates; \$120 for brokers' licenses; and \$108.50 for copies of documents and miscellaneous fees, making a total of all fees received of \$36,116.50.

TELEPHONE AND TELEGRAPH

On November 30, 1938, there were 871,395 telephone stations in Massachusetts, a net gain of 2,202 stations over the preceding year.

There were 726 complaints made to the division during the fiscal year, which required special attention.

The hurricane which occurred on September 21 caused serious and widespread destruction to telephone facilities. It is estimated that in excess of 200,000 stations were put out of order by the storm.

The division had many cases of out-of-order conditions in homes where emergencies existed. The company cooperated with the division in every case by reestablishing service immediately on a temporary basis.

To date it has been estimated that in excess of 250 miles of cable, 4,300 miles of covered drop wire and 1,500 poles have already been provided to replace plant impaired by the hurricane.

Fifty-four offices in Massachusetts were completely isolated in addition to which it was necessary for the company to completely replace two offices. There were other offices which were able to communicate with neighboring offices but were entirely cut off from toll connections to the outside world.

The total cost of the storm in Massachusetts has been estimated to exceed \$3,600,000, which does not include revenue loss.

Notwithstanding the tremendous amount of damage caused to the telephone system, it has been pleasing to note that through the cooperation of the company, with the supervision of this division, the percentage of increased complaints has been extremely low.

State House Telephone Service:

In July of 1935 this division, in connection with the Department of Administration and Finance, completed a study of the telephone service in the State House, with a view to improving the service and also reducing the cost of operation.

Seven auxiliary switchboards have been converted to the main switchboard. Service observations show the departments are now enjoying a better grade of service.

Although the volume of business in local calls increased about 121,000 calls over 1937, the operating expense has remained approximately the same.

It is worthy of note that if the 1938 volume of business had been transacted with the set-up of 1934, the cost of operation would have exceeded the 1934 appropriation by \$12,000.

Additional changes proposed for 1939 will tend to further increase the efficiency of operation.

SALE OF SECURITIES

During the fiscal year, 3,105 salesmen and 593 brokers have been registered. Securities with an aggregate par value of \$22,560,045 have either been refused qualification or their sale forbidden in the Commonwealth.

The division held 55 hearings relating to brokers and salesmen and requests for qualification for sale in the Commonwealth of certain securities. From the findings resulting from these hearings, 12 appeals have been made to the full Commission.

The registrations of 174 salesmen were cancelled by order for failure to furnish change of broker, and the registrations of 63 salesmen were cancelled by request.

Four brokers' registrations were cancelled after a hearing and 4 brokers' registrations were suspended after a hearing and 13 were cancelled by request.

The division also investigated 1,391 complaints against brokers and salesmen.

By order of the Director, all brokers were required to furnish financial statements and 591 satisfactory statements were filed. Because of insufficient liquid capital, the registrations of 2 brokers were cancelled. This requirement was discussed by the Commission appointed to recommend changes in chapter 110A and it is now required under the amended statute that full information as to the financial condition of brokers and salesmen shall be required at least once in every year.

To effectively control the sale of oil royalties in the Commonwealth, which it is estimated has caused an annual loss of at least \$500,000 to investors in this Commonwealth, and remove the doubt existing as to whether oil royalties were securities or interests in land, the legislature specifically defined oil royalties as securities and there has been set up in the Division a branch authorized to deal with the registration for sale of

oil royalties and all matters concerning their sale. This law became effective September 20, 1938, and since that date but 5 oil royalties have been approved of by the Division for sale.

The question of uniformity in filing for the registration or qualification of securities, which was deemed of the utmost importance by brokers and financial institutions, was considered by the Special Commission and particular stress was laid upon the need for such change by representatives of the Investment Bankers Association of America, the Boston Association of Stock Exchange Firms, Securities Dealers Association of New England, and individuals and underwriters. As recommended to the legislature by the Special Commission, a change in the law and practice was adopted whereby a final prospectus, duly attested under the Federal Securities Act of 1933, is accepted in lieu of the statement formerly required by this division, with the right reserved to require further information if it is deemed necessary.

SMOKE ABATEMENT

The division has made, during the year covered by this report, further gains in the elimination of smoke in the 29 cities and towns which go to make up the territory covered by the smoke laws, otherwise known as Chapter 651, Acts of 1910.

The bill filed by the Department restricting the emission of No. 2 smoke to six minutes in any hour (the original law placed no restriction on the emission of smoke of this density, namely 40% black) from stacks listed as Class II, having passed both branches of the General Court, was signed by the Governor on March 24, and became law ninety days later. (Chapter 140, Acts of 1938.)

Pursuant to the instructions of the Department and the Resolve passed by the General Court (Chapter 59) providing for an investigation by the Department of Public Utilities relative to providing relief in the city of Quincy and town of Weymouth against the escape or discharge of cinders, ashes or other solids from buildings in or upon which a furnace or boiler with a forced or induced draft is used, the division, during September and the early part of October, made a thorough and exhaustive survey of the cinder and soot fall in the city of Quincy and town of Weymouth.

Inspectors gathered samples of foliage in the various locations where there were plants operating with forced or induced draft. Fly paper was placed in various spots near the plants which were being investigated. From an examination under the magnifying glass and microscope of the many samples which were collected, it was found that a large proportion of the solid matter collected (save in those samples collected near granite polishing plants) was cinders or fly ash. An examination of the vegetation brought in was shown under magnification to consist largely of cinders with a trace of coal dust. A more detailed report of the investigation and findings in this matter was reported to the Department previous to the public hearing, held October 6, 1938.

Two formal hearings were given by the Director during the year. These hearings are preliminary to the issuance of the formal order to stop or abate the emission of smoke to comply with the provisions of Chapter 651, Acts of 1910. In addition 51 conferences with owners or operators were held and as a result of these, further violations were eliminated in many instances.

On December 1, 1937, there were 111 plants whose owners had been ordered to abate smoke to comply with the provisions of the Smoke Law (Chapter 651, Acts of 1910). During the year, the Director issued three new orders, so that on December 1, 1938, there were 110 plants subject to the formal order.

The number of complaints received from the public showed a slight decrease over the total number received during the previous year, 157, as compared to a total of 173 received in 1937. All complaints were

promptly investigated and where smoke conditions were noted suggestions were offered as to how the trouble might be overcome. Subsequent investigation showed that in most cases the condition had been improved.

During the year, the inspectors have made 1,052 plant calls, many of which were for the purpose of warning those in charge of boilers that smoke was being emitted close to the maximum allowed; thus, the division has been able to forestall violations in many instances.

During the period covered by this report, the division's inspectors noted 80 plants where a violation was observed for the first time; and these plants account for 11.3% of the total number of violations reported.

Below is given the total number of observations made on each type of stack for the years ending November 30, 1937 and 1938. An "observation" is a graphic record of the amount of smoke issuing from a stationary or marine stack or a roundhouse jack during a period of one hour, or in the case of a locomotive for a period of five minutes.

	1937	1938
Stationary stacks	292,157	297,699
Locomotive stacks	53,220	51,035
Marine stacks	5,948	6,153
Total	351,325	354,887

The total number of violations reported shows a small decrease. The stationary and marine violations show a decrease whereas the locomotive violations show an increase. This, in the opinion of the division, was due in large part to the unusual conditions which have confronted the railroads. Because of flood and hurricane damage, the regular supply of locomotive fuel has been interrupted and they have had to burn whatever grade of coal was available.

Observations were taken on a total of 4,270 stacks and in 3,757 cases, or 88%, no violations were noted. Approximately 44% of the violations noted on stationary stacks were from oil burners; 51% from coal, and 5% from wood or rubbish.

The division has attempted to create a spirit of cooperation among owners and operators of the various plants, believing that by this means more can be accomplished than by confining its activities strictly to policing the 290 square miles within its jurisdiction and instituting court action after violations have occurred.

The Department, early in 1938, petitioned the General Court for legislation relative to procedure before the Department. Subsequently, an Act was passed (Chapter 221 of the Acts of 1938) which act provides in part as follows:

In the hearing of all matters other than those of formal or administrative character coming before the commission, one or more commissioners shall participate and in the decision of all such matters at least three commissioners shall participate; provided that any such matter may be heard, examined and investigated by an employee of the department designated and assigned thereto by the chairman, with the concurrence of at least three commissioners. Such employee shall make a report in writing relative to every such matter to the commission for its decision thereon. For the purposes of hearing, examining and investigating any such matter such employee shall have all of the powers conferred upon a commissioner by section five A, and all pertinent provisions of said section shall apply to such proceedings. In every such case the concurrence of a majority of the commissioners participating in the decision shall be necessary therefor.

Acting under the provisions of this chapter, many matters have been assigned to designated members of the Department for hearing, examination and investigation, following which reports have been submitted in

writing relative to all such matters, to the Commission for its decision. This procedure has facilitated the holding of many hearings in places other than the State House, which has inconvenienced parties interested in such matters, and has also expedited hearings upon petitions, applications and complaints, and the decisions of the Commission thereon.

RECOMMENDATIONS FOR LEGISLATION

Rates, Prices and Charges for the Sale and Distribution of Gas and Electricity:

Section 94, of chapter 164 of the General Laws (Ter. Ed.) relating to gas and electric companies, provides among other things, "for the suspension of a filed rate for a period not longer than six months." It has been the experience of this Department that such a period frequently does not afford sufficient time for the taking of evidence, completion of hearings, consideration of an involved rate schedule and the preparation of a written opinion dealing with the issues raised at hearings held in connection therewith. At the present time we are permitted a ten months' suspension period on the rates filed by common carriers. It would seem that we should have a similar period for consideration of the rates of a gas or electric company as we do when the rate in question is one filed by a common carrier.

A further change in procedure is suggested in this section, namely a change of wording which would clarify the right of the Department to order a suspension from time to time within the general ten months' limitation. We therefore recommend that this chapter be amended to permit a ten months' suspension.

Changes in Schedules of Common Carriers and Actions Thereon:

Under section 20 of chapter 159 of the General Laws (Ter. Ed.), authority is given to this Department to suspend changes proposed in any schedule filed under this chapter for a period of ten months. Under this section there is some doubt as to whether or not a series of suspensions would be permissible, or whether the law requires a single suspension for any fixed period, such period not to exceed ten months. We believe that there should be no question of the Department's right to suspend either at one time or from time to time schedules submitted under this section. We therefore recommend that the law be clarified.

Transportation of Passengers for Hire by Motor Vehicles:

Section 8 of chapter 159A of the General Laws provides that the Department shall inspect motor vehicles used in the transportation of passengers for hire. We are given authority to charge a fee of ten dollars (\$10) for the permit which is attached to each vehicle. Under the law as it now exists such permit is given for the life of the vehicle. According to our present practice each registered vehicle used in the transportation of passengers for hire is inspected about four times a year. This represents considerable expense to the Commonwealth. We believe that there should be an annual renewal fee assessed on each such vehicle in order to compensate the Commonwealth for the annual expense involved. We therefore recommend legislation which would permit this Department to charge an annual fee of not more than five dollars (\$5) for the renewal of permits issued under this section.

Section 12F of chapter 25 of the General Laws, as inserted by chapter 405 of the Acts of 1935, gives to the Director of the Commercial Motor Vehicle Division authority to enforce chapter 159A of the General Laws. Chapter 159A of the General Laws relates to the transportation of passengers for hire by motor vehicle. The Commercial Motor Vehicle Division is primarily concerned with the enforcement of chapter 159B, which chapter relates to the transportation of property by motor vehicle for hire.

These two chapters deal with entirely different problems. Chapter 159A is concerned with the safety of the traveling public. Chapter 159B is concerned with the regulation of the business of transporting property. The provisions of chapter 159A require the services of inspectors of the Department specially qualified to examine and approve safety appliances and mechanical devices. We have such employees within the Railway and Railroad Division of the Department and we believe that the enforcement of chapter 159A should be charged to that Division rather than to the Commercial Motor Vehicle Division.

Inquests:

Section 8 of chapter 38 of the General Laws relates to the attendance by the Department of Public Utilities at inquests resulting from the death of persons caused by a public conveyance which is under the jurisdiction of this Department. At present there is no provision for such attendance at an inquest which is being conducted for the purpose of inquiring into a death which is caused by a common carrier of passengers for hire by motor vehicle. We believe that this section should be amended so as to require such attendance.

Protection of Railroad Crossings at Grade of a Public Highway or a Traveled Place:

Section 147 of chapter 160 of the General Laws confers upon this Department jurisdiction over protection of railroad crossings at grade over a public highway or a traveled place. It is contended that our jurisdiction is limited to requiring the installation and maintenance of gates, flagmen or electric signals. It has been our experience that in certain cases other forms of protection might be more in keeping with the better security of human life or the convenience of public travel. We therefore recommend that this Act be amended to permit the Department to order the installation and maintenance of such protection as we find to be required.

Respectfully submitted,

FRANCIS M. MCKEOWN, *Chairman*,
RICHARD D. GRANT,
JOHN J. CURLEY,
A. C. WEBBER,
JOHN M. WHOULEY,

Commissioners.

MASS.
DOCS.
COLL.

The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

Commission

OF THE

Department of Public Utilities

FOR THE

Year Ended November 30, 1939



DEPARTMENT OF PUBLIC UTILITIES ANNUAL REPORT

Boston, May 14, 1940.

To the Honorable Senate and House of Representatives:

We respectfully submit the twentieth Annual Report of the Commission of the Department of Public Utilities for the fiscal year ended November 30, 1939.

John M. Whouley was appointed a Commissioner on December 1, 1938.

RETURNS

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads.....	21	Electric companies.....	37
Street railways.....	19	Water companies.....	80
Telephone companies.....	14	Motor bus lines.....	57
Telegraph companies.....	3	Municipal lighting plants.....	41
Steamboat companies.....	2	Manufacturing and other companies and persons doing an electric business.....	5
Sleeping car companies.....	1	Voluntary associations.....	23
Express companies.....	3	Affiliates of gas and electric companies.....	5
Gas companies.....	45		
Total.....			356

In addition to the above there are under the jurisdiction of the Department 924 regular route common carriers, 7,094 irregular route common carriers, 1,164 contract carriers and 1,186 interstate licensed carriers operating motor vehicles for the transportation of property for compensation within the Commonwealth.

During the year the Commission held 717 formal hearings and many conferences. The volume and character of the work requiring the Department's attention during the fiscal year are shown by the following tabulation:

Petitions and Applications: Railroad, 191; street railway, 43; gas and electric, 72; water, 10; motor bus, 141; motor truck, 70; telephone and telegraph, 6; steamboat, 3; sale of securities, 22; miscellaneous, 37; total, 595.

Complaints: Railroad, 134; street railway, 17; gas, 157; electric, 508; water, 50; motor bus, 72; motor truck, 639; telephone and telegraph, 670; sale of securities, 790; smoke abatement, 229; total, 3,266.

Rate Schedules: Railroad freight service, 1,192; passenger service, 222; express, 143; street railway, 25; telephone, 76; telegraph, 6; motor bus, 26; motor truck, 4,250; electricity, 113; gas, 65; water, 19; gas and electric contracts, 341; total tariffs, 6,478.

The appropriations for the Department and its expenditures for the fiscal year ended November 30, 1939, are given below:

Appropriations.....	\$368,442.32
Expenditures.....	331,111.30
Balance.....	\$ 37,331.02

The receipts of the Department for the same period are shown in the following itemized statement:

Gas, Electric and Water Division:		
Fees, gas meter tests.....	\$33,160.20	
Fees, electric meter tests.....	38.00	
Sales, blank forms and classification of accounts.....	295.65	
		\$ 33,493.85
Public Service Division:		
Motor Busses:		
Fees, bus permits.....	\$ 4,113.00	
Fees, drivers licenses.....	4,411.00	
		8,524.00
Miscellaneous:		
Sales, blank forms.....	\$ 11.45	
		11.45

Commercial Motor Vehicle Division:

Motor trucks:		
Fees, common carrier certificates.....	\$ 8,310.00	
Fees, contract carrier permits.....	4,567.00	
Fees, brokers licenses.....	30.00	
Fees, distinguishing plates.....	120,812.00	
Fees, miscellaneous plate receipts.....	66.50	
Fees, copies of documents.....	97.10	
Miscellaneous income.....	19.00	
		\$133,901.60

Securities Division:

Fees, registration of brokers.....	\$23,950.00	
Fees, registration of salesmen.....	13,590.00	
Fees, copies of documents.....	16.35	
		37,556.35

Rent of Land, Brattle Square, Cambridge (Cambridge subway) 4,562.50

Miscellaneous:

Postage.....		.70
Total.....		\$218,050.45

Financial statement verified, May 21, 1940.

Approved: GEO. E. MURPHY,
Comptroller

SPECIAL INVESTIGATIONS

Twenty investigations have been made by the Department upon its own motion during the fiscal year ended November 30, 1939, the character of which is shown below:

Electricity, rates and charges.....	1
Water, rates and charges.....	3
Motor trucks, rates and charges.....	5
Motor bus, rates and charges.....	2
Railroad passenger time tables.....	1
Telephone, rates and charges.....	1
Miscellaneous.....	7
Total.....	20

Chapter 64 of the Resolves of 1939 provided for the establishment of a special unpaid Commission for the purpose of investigating the possibilities of coordinating transportation facilities in and around the Metropolitan Boston area and the advisability of extending the rapid transit system in the city of Boston from the South Station to the Readville district of said city, and relative to the railroad transportation facilities within the Commonwealth, with a view to determining what action should be taken to assure continued transportation service for the communities served by certain railroad lines, particularly commuting passenger service, so-called.

This Commission was to consist of one member of the Senate to be designated by the President thereof, three members of the House of Representatives to be designated by the Speaker thereof, three persons to be appointed by the Governor, the Attorney General and the Chairman of the Commission of the Department of Public Utilities. Under the provisions of said resolve the Chairman of the Commission of the Department of Public Utilities was authorized to designate an officer or employee in the Department to serve in his place on said Commission. In pursuance thereof the Chairman of said Commission on August 3, 1939 designated Commissioner Richard D. Grant as a member of the Special Commission and in the event of his absence at the organization meeting of said Commission, William J. Keefe, Chief Engineer of the Department, was named as alternate member of said Commission.

On March 13, 1939 an order was adopted by the House of Representatives and by the Senate, which order reads as follows:

THE COMMONWEALTH OF MASSACHUSETTS

House of Representatives, March 13, 1939.

ORDERED, That the Department of Public Utilities is hereby authorized and directed to determine the fair market value of the property and franchises of the Boston Elevated Railway Company for transportation purposes, taking into consideration reproduction cost less depreciation and obsolescence, original cost, and also including as an element of such value the earning capacity of said property and franchises based upon the actual earnings thereof. Said department shall, on or before April first in the current year, report to the General Court its finding hereunder.

Pursuant to the provisions of said order, the Department, after investigation and consideration, submitted its report to the General Court on April 1, 1939.

Pursuant to the provisions of section 3 of chapter 333 of the Acts of 1931, and upon notice from the Trustees of the Boston Elevated Railway Company of a deficit in the operation of the railway for the year ending March 31, 1939, the Department has made an investigation of the operations and expenses of the company and a report (the eighth since the enactment of the statute) was transmitted to the Governor and to members of the Metropolitan Transit Council.

CAPITAL STOCK AND BONDS

Ten applications for approval of issues of stock, bonds or notes of public utilities were decided during the year which ended November 30, 1939. The par value of securities to the amount of \$7,299,800 was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	Capital Stock Approved			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Buzzards Bay Gas Co.....	\$ 70,000	\$ 25	\$ 70,000	—	Jan. 17
Gilbertville Water Co. ¹	65,000	100	65,000	—	Jan. 30
Grafton Water Co.....	—	—	—	\$ 48,000	June 12
Housatonic Water Works Co.....	—	—	—	30,000 ²	June 26
Massachusetts Water Works Co.....	32,000	100	32,000	115,000	May 23
Montaup Electric Co.....	—	—	—	3,000,000 ³	Mar. 6
Oxford Water Co.....	—	—	—	35,000 ⁴	Jan. 26
Salisbury Water Supply Co.....	—	—	—	67,500 ⁴	Feb. 16
Springfield Street Railway Co.....	—	—	—	2,895,300 ⁵	Nov. 28
Union Freight Railroad Co.....	—	—	—	192,000 ²	Nov. 17
Western Massachusetts Electric Co..	750,000	25	750,000	—	Dec. 29

¹ Original Stock.

² Notes.

³ Renewal Notes.

⁴ Refunding.

⁵ Maturity of bonds extended twenty-five years.

ACCOUNTING

The Commission on April 14, 1925 appointed Daniel F. Davies Chief Accountant and he assumed the duties of the office May 1, 1925. Mr. Davies discharged the duties of the office until August 4, 1939, when he resigned.

The Commission on October 27, 1939 appointed Arthur D. Snow, Senior Accountant in the Division, to the position of Chief Accountant.

All annual returns required to be filed by gas, electric and water companies were filed with the Department within the time limit prescribed by law. The returns of the municipal lighting plants of Ashburnham and Blandford were filed late.

MUNICIPAL LIGHTING PLANTS

We herewith set forth a list of municipal plants with percentage earnings which, from reports filed in 1939 for the year 1938, appear to have violated the provisions of the statute requiring such plants to reduce their rates when they have earned a profit in excess of the 8 per cent allowed by law:

North Attleborough.....	11.45%
Peabody.....	20.89%
South Hadley.....	8.55%

Of the above plants, North Attleborough has reduced its rate in 1939.

It also appears that the following municipalities have violated section 58 of chapter 164 of the General Laws which provides that the town shall include in the annual appropriations and in the tax levy not less than the estimated cost of the gas and electricity to be used by the town for street lighting, and these figures are as follows:

Town	Estimated amount which should have been paid	Town paid only
Ashburnham.....	\$ 1,456.24	\$ 650.00
Groveland.....	3,351.01	3,000.00
Hudson.....	5,639.77	4,583.34
Mansfield.....	8,606.07	7,500.00
North Attleboro.....	8,302.32	5,000.00
Peabody.....	14,312.32	None
Shrewsbury.....	6,613.75	5,500.00
Wakefield.....	21,943.08	20,000.00

GAS, ELECTRIC AND WATER UTILITIES

The rates and charges of several gas and electric companies were reduced voluntarily or by order of the Department in 1939, with an estimated annual savings to customers of \$385,900. The following table shows the extent of the estimated annual savings from rate reductions based upon the previous year's use in each instance, since 1934:

1934.....	\$1,565,485	1936.....	\$1,263,423	1938.....	\$ 177,650
1935.....	2,823,502	1937.....	2,052,086	1939.....	385,900

The above reductions are below the average reductions effected in prior years, due in part to the damage resulting from the hurricane of September, 1938. It is anticipated that the former trend of rate reductions may be resumed in the near future since the losses resulting from the hurricane have largely been recovered.

Some gas companies made revisions in their rates and charges during the year resulting in estimated reductions amounting to \$70,290, largely to meet competitive fuels.

At the present time some portion of each community in the Commonwealth is being served with electricity and every year records an advance in rural construction.

During the fiscal year, 128,034 gas meters have been tested by the Gas, Electric and Water Division, and those found correct were badged and sealed in accordance with the statute. This figure compares with 113,859 tested in the previous year. Of these 128,034 meters, 368 were tested on complaint of the consumer or the company, of which one would pass gas but would not register. The average error of the remaining 367 meters was 1.31 per cent. Of the new and repaired meters offered for testing, 8,074 were prepayment meters, while 784 meters were rejected as being more than two per cent fast or slow on examination.

Ten electric meters have been tested on complaint of either the consumer or of the electric company.

During the period from December 1, 1938 to November 30, 1939, 492 tests of the quality of the gas supplied by the forty-nine companies distributing gas in the Commonwealth have been made. Thirty-one violations of the legal standard were found and the offending companies duly notified that immediate steps must be taken to correct the conditions.

Eight wet calorimeter meters, three five-foot meter provers and eight calorimeter thermometers were calibrated for the use of various companies.

Seven hundred fifteen complaints relating to supply, service, rates, etc. have been carefully investigated and in most cases have been settled satisfactorily to all concerned. Of these, 157 were against gas companies, 508 against electric companies and 50 against water companies.

A total of 698 accidents have been reported during the fiscal year under the provision of section 95 of chapter 164 of the General Laws. Of this number, 166 were fatal, 152 being reported as caused by gas and 14 as caused by electricity.

In conjunction with the Engineering Division 83 investigations were made relative to gas, electricity and water. Arrangements have usually been made for the completion of such extensions with the companies and consumer without the necessity of a formal hearing before the Commission.

ENGINEERING

In accordance with Chapter 333 of the Acts of 1931, the division has investigated and made special reports on the savings that might be effected on operating expenses of the Boston Elevated Railway for the year ending March 31, 1939.

During the year, the plant accounts of the following companies which were filed under order of the department (D. P. U. 4980), have been checked and the property has been inspected:

Boston Elevated Railway Company.
 East Taunton Street Railway Company.
 Fitchburg & Leominster Street Railway Company.
 Gardner & Templeton Street Railway Company.
 Holyoke Street Railway Company.
 Middlesex & Boston Street Railway Company.
 Northampton Street Railway Company.
 Plymouth & Brockton Street Railway Company.
 Union Street Railway Company.
 Worcester Street Railway Company.
 Amherst Water Company.
 Ashfield Water Company.
 Auburn Water Company.
 Barnstable Water Company.
 Chatham Water Company.
 Cohasset Water Company.
 Dedham Water Company.
 Edgartown Water Company.
 Hingham Water Company.
 Lenox Water Company.
 Southbridge Water Supply Company.
 Wannacomet Water Company.
 Williamstown Water Company.
 Attleboro Steam & Electric Company.
 Fitchburg Gas & Electric Company.
 Cape & Vineyard Electric Company.
 Lawrence Gas & Electric Company.
 New Bedford Gas & Edison Light Company.
 Quincy Electric Light & Power Company
 Plymouth County Electric Company.
 Provincetown Light & Power Company.
 Worcester Gas Light Company.

A physical valuation has been made of the following water companies:

Cheshire Water Company.
 Holliston Water Company.
 Salisbury Water Supply Company.

Investigated and reported to the department on 65 proposed bus routes and on two trackless trolley lines.

Bridges carrying trolley cars and buses to the number of 121 have been inspected. On 12 of these, restrictions were placed as to operation of buses over the bridges.

Examined three sets of plans and structures and approved of changes in the structures of the Boston Elevated Railway, in accordance with Chapter 500 of the Acts of 1897.

In conjunction with the Gas, Electric and Water Utilities Division, investigations were made of 83 complaints relative to electric light and water extensions and other matters requiring engineering assistance.

Much time was devoted this year to the proposed abandonment of some parts and diminution of service of other parts of the Old Colony section of the New York, New Haven & Hartford Railroad.

During the year the Housatonic Water Company completed its slow sand filtration system which is now in operation (D. P. U. 5490.)

Public hearings were held and reports submitted on 25 matters assigned to this division in accordance with Chapter 221 of the Acts of 1938.

At the request of the committee of the Metropolitan affairs of the Legislature, this division made a valuation of the Boston, Revere Beach & Lynn Railroad, within the limits of East Boston and Winthrop.

A study and report was made of the purchase of Barnstable County Gas Company by the Buzzards Bay Gas Company as authorized by Chapter 147 of the Acts of 1938.

Checked plans and estimated strength of proposed bridges, eliminating grade crossings at two locations within the Commonwealth.

Made an appraisal of the property of the Merrimac Valley Power and Buildings Company which was to be purchased by the Amesbury Electric Company (D. P. U. 5556).

Assisted the Department of Correction in designing and installing new electrical apparatus in connection with changes at the State Prison in Charlestown.

Attended conferences at New Haven, Connecticut on the proposed dam and power plant on the Connecticut River to be built by the Army Engineers at Enfield, Connecticut.

An appraisal was made of the Connecticut River Power Company's transmission line between Bellows Falls and the New Hampshire-Massachusetts State line and the Bellows Falls Hydro Electric Corporation (D. P. U. 5842).

Investigated and reported on the Boston Consolidated Gas Company's Rate Case (D. P. U. 5744) and the cost of gas sold by the Eastern Gas & Fuel Associates to the Boston Consolidated Gas Company in D. P. U. 5658.

There were received for filing by the department during the above period 6,478 tariffs, schedules and contracts, divided as follows: Railroad freight, 1,192; Express, 143; Motor trucks (tariffs, schedules and contracts), 4,250; Railroad passenger, 222; Street railway passenger, 25; Motor bus, 26; Telephone, 76; Telegraph, 6; Electric, 113; Gas, 65; Water, 19; and Gas and Electric contracts, 341.

Approvals by the Department were given to 101 applications for permission to file tariffs on less than statutory notice, and four claims for reparations, after examination by the Division.

There has been a great volume of work performed in connection with the filing of tariffs, schedules and contracts with the department by the motor carriers. During this past year there has been 3,220 tariffs of irregular route motor carriers examined, approved and placed in files open for public inspection. At the same time, 2,906 tariffs were rejected as not in conformance with the department's rules or the carriers' certificate of public convenience and necessity. The rejection of these tariffs and inquiries concerning the filing of rates has resulted in more than 2,313 conferences being held with motor carriers. The contracts and schedules of 111 contract carriers were reviewed and accepted as being in conformity with the carriers' permit, department rules, while the filings of 88 carriers were formally rejected. In addition to this, over 1,500 letters requesting that tariffs be filed, were sent to motor carriers who had failed to file within the ninety-day statutory filing time. We have also had a large number of complaints concerning rate violations of

which 73 were investigated and invariably satisfactorily closed. There were also 98 applications for approval of assignment and transfer of certificates and permits reviewed and subsequently approved by the Department.

The Division also held 53 conferences with representatives of various gas, electric, water, bus, railroad and railway companies concerning the filing of tariffs and participated in investigations by the department of the rates of the following: Salem Electric Lighting Company, Haverhill Gas Light Company, United Electric Lighting Company, Union Light and Power Company, Boston Consolidated Gas Company, and the New England Telephone & Telegraph Company.

There are now on file and open to public inspection the tariffs of approximately 40 per cent of the regular and irregular motor carriers. There are about 2,500 carriers to whom certificates have been issued who have failed to file tariffs in accordance with the provisions of the statute and the department's rules. The proper filing of contracts and schedules of minimum charges by contract carriers is proving more difficult to accomplish than in the case of the common carriers. Approximately 1,000 permits have been issued to carriers who have failed to comply with the department's filing requirements. At the present time we are in the process of requesting by letter that these carriers make proper filings.

ACCIDENTS AT GRADE CROSSINGS DURING THE YEAR ENDING
NOVEMBER 30, 1939

RAILROADS	Protected Crossings				Unprotected Crossings			
	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings	Number of Crossings	Killed	Injured	Ratio of Casualties to Crossings
Boston & Albany R. R.....	66	—	2	1-33	84	—	—	—
Boston & Maine R. R.....	416	5	16	1-19	243	1	3	1-60
Boston, R. B. & L. R. R.....	11	—	—	—	—	—	—	—
Hoosac Tun. & Wilmington.....	—	—	—	—	2	—	—	—
Central Vermont Ry.....	7	—	—	—	37	—	—	—
N. Y., N. H. & H. R. R.....	368	1	8	1-41	270	1	1	1-35
Fore River.....	5	—	—	—	—	—	—	—
Grafton & Upton.....	—	—	—	—	—	—	—	—
Totals.....	873	6	26	1-31	636	2	4	1-97

GRADE CROSSING ACCIDENTS INVESTIGATED

Number involving motor vehicles.....	39
Number involving pedestrians.....	<u>1</u>
Total Accidents.....	40

Thirty of these accidents occurred at crossings with some form of protection and 10 at crossings where there was no form of protection. Twenty-three of the above accidents occurred in daylight and 17 after dark. Passenger trains were involved in 28 accidents, freight trains in 10, and switchers in 2.

RAILROADS AND STREET RAILWAYS

The New Haven on October 23, 1935, filed in the United States District Court for the District of Connecticut, a petition for reorganization under section 77 of chapter VIII of the Acts of Congress Relating to Bankruptcy as amended (11 U. S. C. A. 205). At that time it was operating the Old Colony Railroad Company and the Boston and Providence Railroad Corporation under 99-year leases of their properties and franchises, as it had been since its acquisition of these leaseholds in 1893. On June 1, 1936, with said Federal Court's approval, the trustees of the New Haven rejected the lease of the Old Colony Railroad Company and on July 19, 1938, rejected the lease of the Boston & Providence Railroad Corporation. Subsequent to the disaffirmance of these leases the petitioner treated the Old Colony Railroad Company and the Boston & Providence Railroad Corporation as separate and distinct entities although continuing to operate them in conjunction with the rest of the New Haven system. The possession and continued operation of these

properties by the New Haven has been for the separate account of each of the said railroads under authorization of the Federal Court.

The Trustees of the New York, New Haven & Hartford Railroad Company, hereinafter referred to as the New Haven, filed with the Department in November and December of 1937 and in January and February of 1938 eighteen petitions seeking written approval by the Department of the proposed abandonment upon lines within the Commonwealth of 53 passenger stations of the Old Colony Railroad Company, 25 passenger stations of the New England Railroad Company and 10 stations of the Boston & Providence Railroad Corporation; and to discontinue certain passenger trains and to revise the schedules of certain other trains upon lines of the aforesaid railroads presently being operated by the petitioners.

After the petitions were filed, notice was given by the New Haven of the issuance of a new time table, embodying the changes sought to be effected, to take effect on March 27, 1938. Thereafter the Department received a large number of complaints against the suggested curtailment of train service and abandonment of passenger stations from officials of the municipalities involved by the curtailment program, from members of the General Court, from various civic organizations and from private citizens. In view of the widespread public interest and the serious effect which such a change in operations by the principal railroad corporation serving the Commonwealth might have upon the well being of its people it was deemed advisable by the Commission to enter upon an investigation on the Department's own motion of the subject matter of the petitioner's proposals.

Notice was given to all parties and persons interested and on February 23, 1938, the Department began public hearings at which evidence and testimony was received concurrently upon the New Haven's 18 petitions, the various complaints entered in opposition and in connection with the Department's own investigation. The issues involved were the time table changes, the discontinuance of passenger train service and the abandonment of passenger stations. These hearings extended over a period of 21 months and were concluded on November 9, 1939, when the final arguments on behalf of the New Haven and of the Attorney General of the Commonwealth were heard.

Prior to the conclusion of the case as a whole the Department disposed of the petition numbered D. P. U. 5564, dealing with the line operated by the New Haven between Yarmouth and Provincetown, in an order issued July 28, 1938, granting the petition in part but denying it in so far as it affected stations and passenger service which, in the opinion of the Commission, it was necessary to maintain adequately to meet the requirements of public necessity. By the terms of this order the New Haven was required to operate a gas-electric rail car on all week days from Yarmouth to Provincetown in the morning and from Provincetown to Yarmouth in the afternoon, stopping to permit passengers to board or alight at the following-named stations: Yarmouth, South Dennis, Harwich, Brewster, Orleans, Eastham, Wellfleet, North Truro and Provincetown. Approval was given in writing of the abandonment of the stations at Bass River, North Harwich, Pleasant Lake, East Brewster, North Eastham, South Wellfleet, South Truro and Truro. The New Haven Railroad refused to comply with this order and the Department referred the matter to the Attorney General for such action in the premises as he deemed appropriate. Thereafter the Attorney General instituted proceedings in behalf of the Commonwealth in the Massachusetts Supreme Judicial Court to compel the railroad to comply with the Department's order. The case is still pending before said Court. The hearings held subsequent to the issuance of this order were confined necessarily to the subject matter of the remaining seventeen petitions.

After notice, public hearing, investigation by the Department upon its own motion and consideration, the Department ordered that the petitions hereinbefore referred to should be dismissed without prejudice. It further ordered that the Trustees of The New York, New Haven & Hartford Railroad Company, operating the New York, New Haven & Hartford Railroad Company, the Old Colony Railroad Company and the Boston & Providence Railroad Corporation under a decree of the United States District Court for the District of Connecticut, within ten days of the date of this order, reopen for the use of the passengers patronizing the railroads

operated by the petitioners, the following-named passenger stations which are situated upon the lines of railroads operated by the petitioners within the Commonwealth:

Ashcroft, City Mills, Highland Lake, Plimptonville, Winslows, (D. P. U. 5548); Ferry Street, (D. P. U. 5549); Springdale, West Stoughton, Easton, Whittenton, (D. P. U. 5550); Spring Street, (D. P. U. 5551); East Foxborough, West Mansfield, Sharon Heights, (D. P. U. 5552); Norton, (D. P. U. 5557); Fairmount, River Street, Blue Hill Avenue, Morton Street, Dorchester, Harvard Street, Mount Bowdoin, Bird Street, Upham's Corner, (D. P. U. 5559); Matfield, Westdale, Stanley, (D. P. U. 5560); East Braintree, West Hingham, Nantasket Junction, North Cohasset, Black Rock, Beechwood, (D. P. U. 5561); North Hanson, Burrage, Halifax, Plympton, (D. P. U. 5562) Gray Gables, Bourne, Sagamore, East Sandwich, (D. P. U. 5563); Mount Hope, Forest Hills, Jamaica Plain, Boylston Street, (D. P. U. 5565); North Attleborough, Plainville, Wampum, Lake Pearl, Wrentham, Pondville, Walpole Heights, East Walpole, Morrills, (D. P. U. 5566); Rock, South Middleborough, Tremont, (D. P. U. 5567); Braleys, East Freetown, Weld Street, (D. P. U. 5568); Randolph, (D. P. U. 5569); and Charles River, Dover, Farm Street, Medfield Junction, Clicquot, Millis, Medway, West Medway, Caryville, North Bellingham, Bellingham Junction, (D. P. U. 5570).

and further ordered that the said Trustees, within ten days, operate the same schedule of local passenger train service in that part of the East End Territory, so-called, included in the petitions (D. P. U. Nos. 5548, 5549, 5550, 5551, 5552, 5557, 5559, 5560, 5561, 5562, 5563, 5565, 5566, 5567, 5568, 5569, 5570 and 5610,) as was operated on the twenty-eighth day of February, 1938; each of said trains to be operated at the same times, from the same points of origin to the same points of destinations; and over the same routes as were being operated by the petitioners on the aforesaid date; that each of said trains shall stop to permit passengers to board or to alight at the same passenger stations or stops at which each of said trains was scheduled to stop on the said twenty-eighth day of February, 1938.

Subsequent to the issuance by the Department of the order (D. P. U. 5564) the New Haven Railroad appealed to the District Court for the Connecticut District where, after appropriate proceedings, an order was issued authorizing the abandonment of passenger service to 88 passenger stations. From this order the Commonwealth appealed to the Circuit Court of Appeals where the order was reversed by that court. The New Haven Railroad then took an appeal to the Supreme Court of the United States where after hearing an argument the court sustained the Circuit Court of Appeals. During the period from November, 1937 to date many hearings have been held as hereinbefore set forth.

Conferences were held by the Department with the Special Commission to investigate the railroad transportation facilities within the Commonwealth, representatives of the railroad, bondholders of the railroad, residents of all cities and towns, members of the General Court, civic organizations and private citizens seeking to find some means under and by which reasonably adequate service would continue to be furnished to residents of the territory affected by the proposed abandonment of stations and curtailment of service.

The issues involved in the transportation situation are still pending in some form before this Department, the Special Commission to investigate the railroad transportation facilities within the Commonwealth, the Interstate Commerce Commission and the courts. The Department has done and will continue to do all that it can to the end that reasonably adequate rail transportation will continue to be furnished in territory affected by the proposals of the New Haven Railroad.

On October 3, 1939 the Boston, Revere Beach and Lynn Railroad Company filed a petition with the Department for authority to abandon all its stations and train stops and discontinue all of its transportation operations and for approval of plan of reorganization filed in the District Court of the United States and proceedings under section 77B of the Bankruptcy Act.

After due notice public hearings were held by the Department on November 9,

15, 16, 23, 27 and 28; and thereafter, after consideration, on December 11, 1939, the Department issued the following order:

"ORDERED, That the petition of the Boston, Revere Beach and Lynn Railroad Company filed with the Department on October 3, 1939 (D. P. U. 5903) be and hereby is dismissed.

And the Department of Public Utilities does hereby CERTIFY ITS DISAPPROVAL of the Debtor's Plan of Reorganization dated September 8, 1939, referred to in the petition of the Boston, Revere Beach and Lynn Railroad Company, and filed with the Department on October 3, 1939, as to the public interest therein and the fairness thereof."

Copies of the opinion, order and disapproval of the Department, which consists of 29 pages, are on file with the Department and are available to the public.

Thereafter the Boston, Revere Beach and Lynn Railroad acting under the provisions of an order of the United States District Court for the district of Massachusetts, gave notice of its intention to abandon service on all parts of its railroad on January 27, 1940. Subsequently, steps were taken by various interested parties, designed to continue the service on this railroad. These efforts, however, proved ineffective and said railroad on January 27, 1940 abandoned all service.

Prior to the abandonment date the Department, acting under the provisions of section 5 of chapter 159A of the General Laws, (Ter. Ed.) and after conferences and consideration, and in order to provide for unusual, sudden or unforeseen transportation needs or to avoid interruption of existing transportation facilities, issued temporary licenses to certain carriers, deeming that public convenience and necessity so required, and for a period not exceeding 60 days. These temporary licenses were issued to the Saugus Transit Company, Service Bus Line, Inc. and the Boston Elevated Railway Company, and prior to the expiration of said 60-day period the Department, after notice and a public hearing, upon applications previously filed, issued permanent certificates to Rapid Transit, Inc. (name changed from Saugus Transit Company), Service Bus Line, Inc. and Eastern Massachusetts Street Railway Company, authorizing the operation of motor vehicles for the carriage of passengers for hire over routes set forth in said applications and designed to provide service in the territory previously served by said railroad. As a result of the action by the Department there was no interruption of service and the facilities furnished were reasonably adequate to meet the public requirements.

During the fiscal year, the Division of Railway and Bus Utilities made 13,116 inspections of rolling stock, including locomotives, passenger and freight cars; 3,800 inspections of street railway cars; 320 inspections of trackless trolley coaches; 1,470 inspections of railroad and railway stations; 1,619 inspections of railroad and street railway bridges; 1,500 inspections of railroad signals and interlockings, and 341 inspections of grade crossing protection. In addition, switches and derails, foot blocking and bridge guards, and crossing signs were inspected. Defective conditions were called to the attention of the proper officials of the companies and corrections were made.

The Division investigated 164 accidents on railroads; 153 on street railways and was represented at 7 inquests. Also, 134 complaints relating to the operation of railroads and 17 re street railways were investigated and adjusted. Seventy-one special investigations and studies were made.

The Division issued 111 railroad police licenses and 9 steamship police licenses.

At the request of the Attorney General's office, this Division made passenger traffic counts and station revenue account surveys on the New York, New Haven and Hartford Railroad System, to be used by the Attorney General in preparing his defense in cases pending before the courts and this Department regarding the matter of abandoning stations and curtailing service on parts of that system.

MOTOR BUS TRANSPORTATION

At the close of the fiscal year there were 74 persons, associations or corporations (including street railway companies) operating motor buses within the Commonwealth for the carriage of passengers for hire under a certificate of public convenience

and necessity granted by the Department. There were issued 469 bus permits and 4,289 drivers' licenses for which fees aggregating \$8,347.50 have been received.

During the year 7,942 inspections of buses and 698 inspections of highway bridges over which buses operate have been made and 60 accidents and 72 complaints have been investigated. Operating violations, 81 in number, have been noted and corrected. Defective conditions were called to the attention of the proper officials of the companies and corrections made. Thirty-one hearings were conducted by this Division on matters pertaining to railroads, railways and buses.

COMMERCIAL MOTOR VEHICLES

During the year much time of the division was given to the reclassification of registered contract carriers. Hearings were held in Boston, Springfield, Worcester, Pittsfield, Greenfield, Northampton, Haverhill, Lowell, Lawrence, Peabody, Taunton, Fitchburg, Fall River and Hyannis. One hundred and forty-one days were devoted to public hearings at which 3,887 cases were heard and were subsequently reclassified.

George O. Darling was provisionally appointed Director on March 1, 1939 to succeed Frank E. Riley.

A total of 705 applications for new irregular route common carrier certificates, contract carrier permits and amendments were indexed and listed for public hearings. In accordance with the provisions of chapter 483 of the Acts of 1938, notice was sent to all registered carriers in the Commonwealth. These cases took twenty-eight days from June 27, 1939 to August 14, 1939, inclusive. A record was made of each case and protests were noted. In addition, 347 transfer applications were heard and a written report was submitted to the Commission for its decision thereon.

The work of reclassification is practically completed. Approximately 1,200 failed to respond to notices of hearing.

By a vote of the Commission dated July 10, 1939, the Director and Assistant Director were authorized to examine and pass upon regular route common carrier applications, irregular route common carrier applications, contract carrier permit applications and interstate license applications, with the right of the applicant to appeal to the Commission from any such finding, provided such appeal is filed within twenty days from the decision of the Director.

Six hundred thirty-nine complaints were recorded at this Division. Of these, 217 were reports of carriers failing to make returns on C.O.D. shipments, 414 were complaints of carriers failing to obtain plates or permits or operating beyond the scope of permits issued, and 8 complaints were filed against carriers charging less than the prescribed or filed rate. One hundred seventy-five special investigations were made and reported. Five hearings were held on C.O.D. violations. Of the total number of C.O.D. violations registered, 204 were adjusted to the satisfaction of the complainant.

At the close of the fiscal year, there were 924 regular route common carriers, 7,094 irregular route common carriers, 1,164 contract carriers and 1,186 interstate licensed carriers.

TELEPHONE AND TELEGRAPH

On November 30, 1939 there were 892,928 telephone stations in Massachusetts, a net gain of 21,533 stations over the preceding year.

There were 670 complaints made to the division during the fiscal year, which required special attention.

During the past year thirteen changes have been made in various exchange boundaries. These changes brought the subscribers involved into an exchange which served to better their community interests.

In anticipation of the installation of dial service late in 1940 for Newton, the Commission approved consolidation of the Newton North, Centre Newton and West Newton exchanges into one exchange area. It reduced the rate for West Newton subscribers from ten to five cents on calls to the downtown central offices.

In conjunction with this change the town of Watertown which was formerly

served from a part of the Newton North exchange, was set up as a separate exchange covering approximately the corporate limits of the town of Watertown.

The establishment of these two offices necessitated the rearrangement and adjustment of all the calling areas for both contiguous and measured service customers, all of which were approved by the Commission on October 11, 1939, after notice and a public hearing.

Installation of Crossbar Type Dial Telephone Service:

Lynn's new crossbar type dial telephone service—the first of its kind in New England and the third in the United States—was cut over on August 26. From each one-party or two-party telephone it is possible to dial directly to more than fifty different telephone offices in the Greater Boston section.

On November 1, multiple registration became effective for Metropolitan Boston. It is estimated that a saving of \$115,000 to measured service customers in Metropolitan Boston will result from the application of a "message unit" rate (multiple registration) to former 10 and 15-cent calls within the Metropolitan Division and to the Lynn central office. The former 10-cent calls, such as from downtown Boston to Waltham, Woburn, Braintree, Hull and Dedham, to give a few examples, are, billed as two units; and the former 15-cent calls, such as from Boston to Cohasset, Lincoln, Norwood or Randolph, are now billed as three units. Thus residence customers having measured service, for whom the additional unit rate is 3 cents, will pay only 6 cents for their former 10-cent calls, and will pay only 9 cents for their former 15-cent calls. Business customers having measured service, for whom the additional message unit rate is either 4 cents or $3\frac{1}{2}$ cents, depending on the number of calls used, will pay either 8 cents or 7 cents for their former 10-cent calls, and either 12 cents or $10\frac{1}{2}$ cents for their former 15-cent calls, depending on how many they use. In each case, also, such calls may be included in the measured service allowance, so that they may be made without charge by customers who might not otherwise use their full allowance of calls.

Along with these reductions in charges have come considerable service improvements in metropolitan Boston resulting from the extension of the scope of dial service for the telephone users in dial office areas. Under the new plan these telephone users are able to dial directly on all calls within a 16-mile zone in metropolitan Boston. They are also able to dial directly to Lynn, supplementing a similar service made available in August from Lynn to Metropolitan Boston.

The savings are spread over a large number of customers and the total amount involved is substantial.

Additional rate reductions resulting in savings of \$69,000 to customers have been effected during the year. They were made up of the following items:

\$200 in savings because of change in exchange boundary and base rate area of the Acton Exchange;

\$9,000 in savings to measured service customers in Lynn Exchange;

\$16,600 in savings to users of semi-public coin box service through greater message allowances;

\$25,700 in savings to teletypewriter customers, benefiting principally the state and municipal police departments;

\$10,000 in local mileage charges, principally affecting customers located well outside the base rate areas in various exchanges;

\$7,500 in other mileage charges, principally on off-the-premises extension telephone service and tie trunk line service between private branch exchange switchboards in downtown Boston.

Highland Telephone Company:

The greatly impaired plant of the Highland Telephone Company caused by action of the Metropolitan District Water Commission in acquiring approximately 55 per cent of its total area and over 50 per cent of its plant and the further trouble induced by the hurricane, necessitated an intensive study by the division. It

recommended changes which brought about marked improvement and the company is now furnishing adequate service to all its customers.

State House Telephone Service:

As stated in the 1938 annual report, additional changes proposed for 1939 were accomplished. Seven auxiliary switchboards were removed and the conversion of department telephone requirements into the centralized system of Capitol 4600 was made. This will further increase the efficiency of telephone service furnished to the public calling the State House and also greatly speed the completion of inter-departmental calls through the dial system. Plans are under way for the operation of a complete centralized system in the forthcoming year. At the conclusion of these changes an estimated yearly saving of approximately \$25,000 will be made in communication cost.

SMOKE ABATEMENT

The Division has made further progress in the elimination of smoke in the 29 cities and towns which go to make up the territory covered by the smoke law (chapter 651, Acts of 1910).

Ten formal hearings were held by the Director during the year. These hearings are preliminary to the issuance of a formal order to stop or abate the emission of smoke to conform to the provisions of chapter 651, Acts of 1910. In addition, 33 conferences with owners or operators were held, and as result further violations were eliminated in many instances.

On December 1, 1938 owners of 110 plants were ordered to abate the smoke to comply with provisions of the smoke law. During the year one of these orders became void due to the fact that the plant was burned and the company has established a new plant in a different location. The division has issued four orders during this period, so that 113 plants have been subject to the formal order.

The number of complaints received from the public showed quite a material increase over the number received during the previous year. There were 184 in the original territory (Boston, Brookline, Cambridge, Chelsea, Everett and Somerville) and 45 in the new, making a total of 229 as compared with 157 for 1938. All complaints were promptly investigated and where violations were noted, suggestions were offered as to how the trouble might be overcome. Subsequent investigations showed in most cases the nuisance had been abated.

During the year the inspectors have made 772 plant calls, many of which were for the purpose of warning firemen that chimneys at the various plants emitted smoke close to the maximum allowed. Thus we have been able to forestall violations in many instances.

The total number of observations made on each type of stack for the years ending November 30, 1938 and 1939 are given below. An observation is a graphic record of the amount of smoke issuing from a stationary or marine stack or a roundhouse jack during a period of one hour, or in the case of a locomotive, for a period of five minutes.

	1938	1939
Stationary stack.....	297,699	282,079
Locomotive stacks.....	51,035	47,097
Marine stacks.....	6,153	6,176
Total.....	354,887	335,352

While the total number of observations made this year on stationary and locomotive stacks shows a small decrease, the marine class shows a slight increase. It is gratifying to note that the number of violations reported on all three classes—stationary, marine and locomotive, shows a substantial decrease, in the first-mentioned class of approximately 8 per cent and in the last 2 of 50 per cent.

Observations were taken on a total of 4,337 stacks and 3,929, or 90.6 per cent were without any violations having been noted. This shows a gain of approximately 2.6 per cent in the number of clean stacks.

Approximately 47 per cent of the violations noted on stationary stacks were burning oil, 48 per cent were burning coal and 5 per cent, wood or rubbish.

In conclusion, the Division looks forward to the coming year confident that a further reduction of smoke will be effected. Through the efforts of this Division there has been created a spirit of cooperation among the owners and operators of the various plants which we feel will be continued.

SALE OF SECURITIES

During the fiscal year there were filed with the Division 207 Notices of Intention to Offer for Sale 259 security issues having a par value of \$1,020,038,126.83, the offering price for which aggregated \$1,335,137,839.79. This is a monthly average of approximately 17 Notices and \$111,261,500 aggregate offering price; the average offering price of the securities presented on each Notice being \$6,450,000. The smallest number of Notices filed in any one month was 10 in February; the largest number was 28 in June. The corresponding amounts of aggregate offering price being \$11,853,161 and \$291,440,702, respectively. Final disposition was not reached on only 8 of the Notices filed, while 13 were brought over from last year so that such action was taken on 212 Notices covering 269 security issues during the year.

The aggregate offering price of the issues so considered amounted to \$1,374,284,517.54. Of this amount \$588,336,291.61 was passed for qualification; \$563,333,047.50 was exempted; \$222,515,178.43 was permitted to withdraw and not become qualified and \$100,000 was forbidden qualification by finding of fraud against the security.

Of the securities that had at some time become qualified, 101 issues having a par value of \$99,253,522.50 were banned from sale by findings, 88 of these issues having a par value of \$95,242,722.50, for failure to file required information. Revocation was made of findings affecting 15 issues of a par value aggregating \$43,991,579.00.

Continuing the practice, instituted last year when they were first defined as securities by statute, Oil Royalties are passed for qualification only for the period during which the Federal Offering Sheet relating thereto is effective. Such period is limited to 110 days but may be renewed by refiling. In the past year only 48 Notices on such securities were filed, of which only 26 were passed for qualification. These were filed by 7 brokers who reported sales totalling \$82,030.88.

A total of 552 brokers were registered, of which registrations 14 were cancelled by request of broker and 2 were suspended; 2,817 salesmen were registered, of which registrations 116 were cancelled by request of the salesman, 48 cancelled for failure to furnish name of broker, 3 cancelled by order after a hearing and 1 was suspended by order. Hearings were held on 5 salesmen's applications for registration, of which 3 were denied and 2 approved. In all, 16 hearings were held, resulting in 10 appeals from the action of the Division being taken to the Commission.

In addition to formal hearings approximately 790 complaints against brokers and salesmen were investigated.

Silas F. Waite of Boston, who had been Chief Inspector since 1921, when the Sale of Securities Act first became effective, retired on March 25, 1939.

John H. Backus of New Bedford, who was appointed Director of the Securities Division on November 30, 1936, terminated his service on November 7, 1939, upon the abolition of the Division, pursuant to chapter 442 of the Acts of 1939, effective November 8, 1939, which transferred its powers and duties to the Commission of the Department.

In accordance with the provisions of section 32 of chapter 30 as amended by chapter 499 of the Acts of 1939, the Department submits the following list of all rules and regulations made or promulgated by the Department and in force and effective on November 30, 1939, namely:

1. P.S.C. 1752—November 8, 1918—Modification of regulations relative to emergency tools and appliances on railroad trains and cars.
2. D.P.U. 300—Rules with reference to the equipment of street railway cars.
3. D.P.U. 2304—Rules, terms and conditions, operation of motor vehicles for carriage of passengers for hire—May 15, 1926.

4. Rules for the observation of smoke by smoke inspectors—adopted February 8, 1929—authority section 4, chapter 651, Acts 1910.
5. Rules and regulations of the Department on July 31, 1931 relating to forms of accounts, records and memorandum and forms of annual returns of common carriers, of gas and electric companies or persons in manufacture and sale or distribution of gas or electricity, and of water companies, together with attested copies of forms referred to in said rules and regulations.
6. D.P.U. 4214—August 19, 1931—Regulations relating to intake pipe leading to gas meter, an automatic device designed to retard gas in case of fire.
7. D.P.U. 4224—Rules and regulations—provisions of section 2, chapter 135, Acts 1931—Signals by rail-borne motor cars operated on railroads. Adopted December 24, 1931.
8. D.P.U. 4350—Rules, terms and conditions, operation of motor vehicles for carriage of passengers for hire, March 11, 1932.
9. March 25, 1932—Amendment to D.P.U. 4350 noted above.
10. D.P.U. 4437—Rules, terms and conditions, operation of sightseeing automobiles for the carriage of passengers for hire (June 30, 1932).
11. D.P.U. 4447—July 14, 1932—Rules and regulations relative to the lending of money by gas and electric companies.
12. March 24, 1933—Amendment to D.P.U. 4447 noted above.
13. July 15, 1927—Rules and regulations for filing of tariffs and schedules, also an amendment to said rules and regulations—June 23, 1933.
14. D.P.U. 4240—December 29, 1933—Order of department relative to books and accounts of gas and electric companies, municipal lighting plants and water companies.
15. D.P.U. 4350-AB—May 15, 1934—Amendment to rules, terms and conditions for the operation of motor vehicles for the carriage of passengers for hire, adopted March 11, 1932.
16. D.P.U. 4926—February 12, 1935—Rules and regulations relating to motor vehicles transporting property for hire.
17. D.P.U. 4888—March 12, 1935—Order in relation to equipment of railroad trains and cars with emergency tools and appliances.
18. D.P.U. 4350-AU—March 20, 1936—Amendment of Rule 38 of Rules, terms and conditions for the operation of motor vehicles for the carriage of passengers for hire, adopted March 11, 1932.
19. D.P.U. 4240—March 18, 1938—Order relating to classification of accounts for gas and electric companies, municipal lighting plants and water companies.
20. D.P.U. 4888—December 4, 1936—Order in relation to equipment of railroad trains and cars with emergency tools and appliances.

Respectfully submitted,

JOSEPH R. COTTON, *Chairman*,
RICHARD D. GRANT,
JOHN J. CURLEY,
FRANCIS M. McKEOWN,
JOHN M. WHOLEY,
Commissioners.

The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

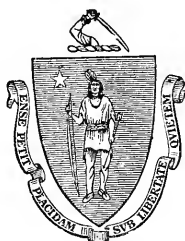
Commission

OF THE

Department of Public Utilities

FOR THE

Year Ended November 30, 1940



DEPARTMENT OF PUBLIC UTILITIES ANNUAL REPORT

January 15, 1941.

To the Honorable Senate and House of Representatives:

We respectfully submit the twenty-first Annual Report of the Commission of the Department of Public Utilities for the fiscal year ended November 30, 1940.

Joseph R. Cotton, of Lexington, having been appointed a Commissioner to succeed Abraham C. Webber, and having been designated by His Excellency the Governor Chairman of the Department, assumed the duties of the office on December 13, 1939.

Upon the termination of the provisional appointment of Leonard F. Hardy as Secretary of the Department, Allan Brooks was appointed Secretary, effective January 16, 1940.

RETURNS

The number of corporations, private and municipal, persons, firms and associations under the jurisdiction of and filing annual returns with the Department, exclusive of those filing under the Sale of Securities Act, is as follows:

Steam railroads	21	Electric companies	36
Street railways	18	Water companies	80
Telephone companies	13	Motor bus lines	57
Telegraph companies	3	Municipal lighting plants	41
Steamboat companies	2	Manufacturing and other companies and persons doing an electric business	5
Sleeping car companies	1	Voluntary associations	17
Express companies	3	Affiliates of gas and electric companies	5
Gas companies	44		
Total			346

In addition to the above there are under the jurisdiction of the Department 789 regular route common carriers, 8,284 irregular route common carriers and 1,224 contract carriers operating motor vehicles for the transportation of property for compensation between points within the Commonwealth, and 1,449 licensed interstate carriers.

During the year the Commission held 513 formal hearings and many conferences. The volume and character of the work requiring the Department's attention during the fiscal year are shown by the following tabulation:

Petitions and Applications: Railroad, 149; street railway, 31; gas and electric, 103; water, 10; motor bus, 165; motor truck, 203; telephone and telegraph, 26; steamboat, 4; sale of securities, 59; miscellaneous, 43; total, 798.

Complaints: Railroad, 92; street railway, 18; gas and electric, 670; water, 26; motor bus, 46; motor truck 782; telephone and telegraph, 813; sale of securities, 561; smoke abatement, 189; total 3,197.

Rate Schedules: Railroad freight service, 1,062; passenger service, 289; express, 120; street railway, 34; telephone, 31; telegraph, 12; motor bus, 26; motor truck, 3,755; electricity, 190; gas, 65; water, 12; gas and electric contracts, 273; total, 5,869.

The appropriations for the Department and its expenditures for the fiscal year ended November 30, 1940, are given below:

Appropriations	\$379,359.60
Expenditures	319,837.81
Balance	\$ 59,521.79

The receipts of the Department for the same period are shown in the following itemized statement:

Gas, Electric and Water Division:

Fees, gas meter tests	\$32,081.80
Fees, electric meter tests	32.00
Sales, blank forms and classification of accounts, etc.	216.25
	<u>\$ 32,330.05</u>

Public Service Division:**Motor Buses:**

Fees, bus permits	5,843.50	
Fees, drivers' licenses	4,910.50	
		10,754.00

Miscellaneous:

Sales, blank forms		9.70
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Commercial Motor Vehicle Division:**Motor trucks:**

Fees, common carrier certificates	13,652.00	
Fees, contract carrier permits	2,910.00	
Fees, brokers' licenses	10.00	
Fees, distinguishing plates	121,884.00	
Fees, miscellaneous plate receipts	201.00	
Fees, copies of documents	56.85	
		138,713.85

Securities Division:

Fees, registration of brokers	26,450.00	
Fees, registration of salesmen	13,020.00	
Fees, copies of documents	12.00	
		39,482.00

Rent of Land, Brattle Square, Cambridge (Cambridge subway) 3,000.00

Miscellaneous:

Postage	2.48	
Refunds on account of prior years	20.00	
		22.48

Total \$224,312.08

Financial statement verified, January 20, 1941.

Approved:

WALTER S. MORGAN,
Comptroller.

SPECIAL INVESTIGATIONS

Twenty-nine investigations have been made by the Department upon its own motion during the fiscal year ended November 30, 1940, the character of which is shown below:

Electricity, rates and charges	12
Gas, rates and charges	7
Water, rates and charges	1
Motor truck, rates and charges	3
Railroad, passenger time tables	2
Steamboat, rates	1
Telephone, rates and charges	3
Total	29

The Special Commission, established by chapter 64 of the Resolves of 1939 to make an investigation of the possibilities of coordinating transportation facilities in and around the Metropolitan Boston area, and as to what action should be taken to assure transportation service for communities served by certain railroad lines, particularly commuting passenger service, referred to in our last annual report, has completed its final report for transmission to the General Court.

Pursuant to the provisions of section 3 of chapter 333 of the Acts of 1931 and upon notice by the Trustees of the Boston Elevated Railway Company of a deficit in the operation of the railway for the year ending March 31, 1940, the Department has made an investigation of the operations and expenses of the company, and a report (the ninth since the enactment of the statute) will shortly be transmitted to the Governor and to members of the Metropolitan Transit Council.

Eight applications for approval of issues of stock, bonds or notes of public utilities were decided during the year which ended November 30, 1940. The par value of securities to the amount of \$56,183,000.00 was approved.

The following table shows the securities approved by the Commission for the several companies applying therefor, giving both the par value of the capital stock and the issue price thereof, determined as required by law:

COMPANY	Capital Stock Approved			Bonds Approved at Par	Date
	Amount at Par	Issue Price	Value at Issue Price		
Auburn Water Company . . .	—	—	—	\$ 50,000	March 4
Boston Edison Company . . .	—	—	—	53,000,000 ¹	Nov. 18
Dedham Water Company . . .	—	—	—	400,000 ¹	Nov. 19
New Bedford Gas & Edison Light Co.	—	—	—	500,000 ²	Jan. 2
New Bedford Gas & Edison Light Co.	—	—	—	1,750,000 ³	July 26
Provincetown Light & Power Co. .	\$280,000	\$100	\$280,000	—	Oct. 23
West Stockbridge Water Co., Inc. .	15,000	100	15,000 ⁴	—	Nov. 8
Williamstown Water Company . .	44,000	100	44,000	144,000 ¹	July 24

¹ Refunding

² Serial Notes

³ Notes

⁴ Original Common Stock

ACCOUNTING

All annual returns required to be filed by gas, electric, water companies and municipal lighting plants were filed with the Department within the time limit prescribed by law.

MUNICIPAL LIGHTING PLANTS

We have set forth a list of municipal plants with percentage earnings which, from reports filed in 1940 for the year 1939, appear to have violated the provisions of the statute requiring such plants to reduce their rates when they have earned a profit in excess of the 8 per cent allowed by law:

Ashburnham	9.44%
Braintree	9.32%
Hingham	9.03%
North Attleborough	14.39%
Norwood	9.93%
Peabody	28.40%
South Hadley	9.47%
Sterling	8.51%

Of the above plants, North Attleborough and Sterling reduced their rates in 1940.

It also appears that the following municipalities have violated section 58 of chapter 164 of the General Laws which provides that the town shall include in the annual appropriations and in the tax levy not less than the estimated cost of the gas and electricity to be used by the town for street lighting, and these figures are as follows:

Town	Estimated amount which should have been paid	Town paid only
Ashburnham	\$ 1,586.33	\$, 650.00
Boylston	1,253.48	1,017.03
Chester	1,141.53	1,000.00
Groveland	3,375.00	3,000.00
Hudson	5,394.30	5,000.00
Hull	14,138.46	13,127.50
Ipswich	6,571.63	6,200.00
Mansfield	7,983.84	7,500.00
North Attleborough	8,098.43	5,000.00
Peabody	15,094.65	none
Reading	14,715.74	14,000.00
Shrewsbury	6,601.75	5,500.00
Wakefield	23,854.86	20,000.00
Westfield	14,052.10	13,000.00

GAS, ELECTRIC AND WATER UTILITIES

The rates and charges of gas and electric companies were reduced by orders of the Department or voluntarily by the companies, during the fiscal year ending November 30, 1940, by an amount representing annual savings to customers of approximately \$1,675,000.

The extent of the estimated annual savings to customers from such rate reductions since 1934, based upon the previous year's use in each instance is shown by the following table:

1934	.	.	.	.	.	.	.	.	\$1,565,485
1935	.	.	.	.	.	.	.	.	2,823,502
1936	.	.	.	.	.	.	.	.	1,263,423
1937	.	.	.	.	.	.	.	.	2,052,086
1938	.	.	.	.	.	.	.	.	177,650
1939	.	.	.	.	.	.	.	.	385,900
1940	.	.	.	.	.	.	.	.	1,675,000
Total	.	.	.	.	.	.	.	.	<u>\$9,943,046</u>

During the fiscal year 127,990 gas meters have been tested by the Gas, Electric and Water Division and those found correct were badged and sealed in accordance with the statute. This figure compares with 128,034 tested in the previous year. Of these 127,990 meters, 135 were tested on complaint of the consumer or of the Company. The average error of these 135 meters was 1.23 per cent fast as compared with 1.35 per cent fast the previous year.

Six electric meters were tested on complaint of the consumer or of the Company and the statutory tolerance of error was not exceeded in any case.

During the period from December 1, 1939 to November 30, 1940, 484 tests of the gas supplied by the forty-eight gas companies of the State were made. Twenty-eight violations of the legal standard were found and the offending companies duly warned that immediate steps must be taken to correct conditions and such conditions were thereafter corrected.

Eleven calorimeter wet meters, two five-foot provers and four calorimeter thermometers were calibrated for use of various companies.

Six hundred ninety-six complaints relating to supply, service, rates, etc. have been investigated and in most cases settled satisfactorily to all concerned. Of these, 141 were against gas companies, 529 against electric companies and 26 against water companies.

A total of 1,227 accidents has been reported during the fiscal year under the provisions of section 95 of chapter 164 of the General Laws (Ter. Ed.). This compares with 698 reported during the fiscal year ending November 30, 1939. Included in the total accidents there were 151 fatal accidents, 143 having been caused by gas and eight by electricity.

In conjunction with the Engineering Division eighty-seven investigations relative to extensions of gas, electric or water service were made.

ENGINEERING

During the fiscal year the plant accounts of the following companies have been checked and some of the properties have been inspected by the Engineering Division:

Boston Elevated Railway Company
 Berkshire Street Railway
 Union Street Railway
 Boston, Worcester & New York Street Railway
 Eastern Massachusetts Street Railway
 Edgartown Water Company
 Williamstown Water Company
 Worcester Gas Company

Worcester Gas Light Company
 Suburban Gas & Electric Company
 Cape & Vineyard Electric Company
 Gloucester Electric Company
 Attleboro Steam & Electric Company
 Plymouth Gas Light Company
 North Adams Gas Company
 Adams Gas Company
 Northern Berkshire Gas Company
 Southeastern Electric Company
 Plymouth Electric Company
 Plymouth County Electric Company
 United Electric Light Company
 Beverly Gas & Electric Company
 Greenfield Gas Light Company
 New Bedford Gas & Edison Light Company
 Provincetown Light & Power Company

A physical valuation has been made of the following water companies:

Auburn Water Company
 Williamstown Water Company
 Fairhaven Water Company
 West Stockbridge Water Company
 Topsfield Water Company

The Division investigated and reported to the Department on 53 motor bus routes and inspected 109 bridges carrying trolley cars and buses. On two of these bridges, restrictions were placed as to load, and on eight, bridge restrictions were removed.

Reports were made to the Department of all the departments of the Boston Elevated Railway Company in connection with its investigation of the operations and expenses of said railway company under chapter 333 of the Acts of 1931.

An investigation and report of the explosion at the Old Colony Gas Company plant in East Braintree was made.

The Department of Mental Health requested a study of the question of a proposed new contract for the purchase of gas at the Danvers State Hospital. After several conferences a new contract was submitted which will represent a saving of about \$1,250.00 a year to the Commonwealth.

The Department of Public Health requested a report on the power situation at Pondville Sanatorium especially with relation to whether that Department should rebuild its present plant or purchase all its power requirements from the Boston Edison Company.

An investigation of Standby Rates and Charges to the Norfolk State Prison Colony by the Boston Edison Company was made as requested by the Department of Correction.

An investigation of a new contract for the purchase of electric power at the Women's Dormitory at Massachusetts State College in Amherst was made.

In conjunction with the Gas, Electric and Water Utilities division investigations were made of 74 complaints relative to electric light and water extensions and other matters requiring engineering assistance.

A study was made and hearings were held on the railroad location plans in connection with flood control in Templeton.

Investigations were made on Old Colony Railroad problems which have been before the Department during the year.

A report was made of the land and real estate of the New York, New Haven and Hartford Railroad in accordance with chapter 309 of the Acts of 1917.

As in the preceding year, much time has been devoted to the enforcement of the rate provisions of the law relating to motor carriers of property for hire. During the past year 2,873 motor carriers completed the filing of satisfactory tariffs as common carriers or schedules of minimum charges and contracts as contract carriers.

During this period 1,448 tariffs or schedules were rejected as unacceptable for filing for failure to conform to the Department's tariff rules or to the carrier's certificate or permit.

There are now on file and open to public inspection, the tariffs of nearly 6,500 motor common carriers and the contracts and schedules of 386 contract carriers. There remain approximately 1,500 certificates issued and in effect on which satisfactory tariffs have not yet been filed. It is planned to continue holding public hearings on those common carriers who have failed to file tariffs. Action is also planned against those contract carriers who have failed to file contracts and schedules of minimum charges within a reasonable time from the issuance date of the permit.

ACCIDENTS AT GRADE CROSSINGS DURING THE YEAR ENDING
NOVEMBER 30, 1940

RAILROADS	Protected Crossings					Unprotected Crossings				
	Number of Crossings	Killed	Injured	No Injury	Ratio of Casualties to Crossings	Number of Crossings	Killed	Injured	No Injury	Ratio of Casualties to Crossings
Boston & Albany R. R. . . .	66	—	—	—	—	74	—	1	—	1—74
Boston & Maine R. R. . . .	407	2	21	7	1—18	241	2	—	1	1—122
Boston R.B. & L. R. R.*	11	—	—	—	—	—	—	—	—	—
Hoosac Tun. & Wilmington R. R.	—	—	—	—	—	2	—	—	—	—
Central Vermont Ry. . . .	7	—	—	—	1—4	37	—	—	—	—
N.Y. N.H. & H. R. R. . . .	362	—	4	5	1—91	261	—	3	2	1—87
Fore River	7	—	—	—	—	—	—	—	—	—
Grafton & Upton	—	—	—	—	—	—	—	—	—	—
Totals	860	2	27	12	1—30	615	2	4	3	1—103

*Abandoned January 27, 1940

GRADE CROSSING ACCIDENTS INVESTIGATED

Number involving motor vehicles	32
Number involving pedestrians	0
Total Accidents	32

Twenty-four of these accidents occurred at crossings with some form of protection and 8 at crossings where there was no form of protection. Twenty-one of the above accidents occurred in the daylight and 11 after dark. Passenger trains were involved in 15 accidents, freight trains in 16 and a light engine in 1.

RAILROADS, STREET RAILWAYS AND STEAMBOATS

During the fiscal year the Division of Railway and Bus Utilities made 15,159 inspections of rolling stock, including locomotives, passenger and freight cars; 3,117 inspections of street railway cars; 352 inspections of trackless trolley coaches; 1,449 inspections of railroad and street railway stations; 1,904 inspections of railroad and street railway bridges; 9,200 inspections of railroad and street railway automatic and interlocking signals; 127 inspections of interlocking, remote control and centralized traffic control systems and 606 inspections of grade crossing protection. In addition, switches and derails, foot blocking, bridge guards and crossing signs were inspected. Defective conditions were called to the attention of the proper officials of the companies and corrections were made.

The Division investigated 216 accidents and 137 delays on railroads and 107 accidents and 76 delays on street railways. Sixty-four complaints relative to the operation of railroads and 18 as to street railways were investigated.

The Division assisted the Department of the Attorney General in securing information regarding passenger, freight and miscellaneous revenues at certain stations on the Old Colony Railroad, together with passenger traffic counts which were presented at hearings before the Department and before the Interstate Commerce Commission on the matter of abandonment of service on the

Old Colony Railroad. The Division also offered testimony at a hearing before the Interstate Commerce Commission in Washington in relation to the matter of said abandonment.

MOTOR BUS TRANSPORTATION

At the close of the fiscal year there were 77 persons, associations or corporations (including street railway companies) operating motor buses within the Commonwealth for the carriage of passengers for hire under a certificate of public convenience and necessity granted by the Department. There were also 109 persons, associations or corporations operating motor buses within the Commonwealth for the carriage of passengers for hire under a special or charter license granted under the provisions of chapter 404 of the Acts of 1939. There were 624 bus permits (including duplicate or amended permits) and 4,755 bus drivers' licenses (including duplicate licenses) issued, for which fees aggregating \$10,754.00 have been received. The Division made 8,697 inspections of buses; 941 inspections of highway bridges over which buses operate and defective conditions were called to the attention of the proper officials and corrections made. The Division also investigated 98 accidents; was represented at 7 inquests and investigated and adjusted 46 complaints. Seven hundred sixty-eight drivers were examined for bus drivers' licenses.

RAILROADS AND STEAMSHIPS

On January 8, 1940, the Trustees of the New York, New Haven and Hartford Railroad filed with the Department a motion to reopen the hearings involving the so-called 88 station cases, for the purpose of introducing new evidence, pertinent to the issues involved in the said petitions. This motion was granted and public hearings thereon were held on January 29 and 31, 1940.

The original petitions, with the exception of the Yarmouth-Provincetown case, which was decided by the Department in 1938, were dismissed without prejudice in our order of November 28, 1939, because of insufficient, inconclusive and unconvincing evidence, and the Trustees were ordered to restore within 10 days the service that had been discontinued and to reopen the 88 stations that had been closed in compliance with an order of the Federal Court, which was overruled by the Supreme Court.

Written approval of the Department was sought for the proposed abandonment of 88 stations upon the lines of the petitioner within the Commonwealth of Massachusetts, 53 of which were on the Old Colony Railroad, 25 on the New England and 10 on the Boston and Providence; and to discontinue certain passenger trains and to revise the schedules of certain other trains upon the lines of the aforesaid railroads presently being operated by the New Haven.

The Department studied carefully the exhibits and testimony in the reopened cases. The results of its own investigation which had not been completed in previous hearings were now available and on February 20, 1940 an order was made permitting the petition in part.

The Department by this order approved in writing the abandonment of passenger stations at Bass River, North Harwich, Pleasant Lake, Brewster, East Brewster, North Eastham, South Wellfleet, South Truro, North Truro, Morrills, East Walpole, Walpole Heights, Pondville, Wrentham, Lake Pearl, Wampum, Plainville, North Attleboro, Springdale, Easton, Whittenton, Norton, East Freetown, Braleys, Weld Street, Ferry Street, West Hingham, Nantasket Junction, North Cohasset, Black Rock, Beechwood, Randolph, North Hanson, Burrage, Halifax, Plympton, Matfield, Westdale, Stanley, Rock, South Middleboro, Tremont, Bourne, Sagamore, East Sandwich, Gray Gables on the Old Colony Railroad and North Bellingham, Bellingham Junction, Ashcroft, Winslow, Highland Lake, City Mills, on New England Railroad and Sharon Heights, West Mansfield, Spring Street and West Stoughton on the Boston and Providence Railroad.

It further ordered the New Haven to reopen stations at East Braintree, on the Old Colony Railroad; Plymptonville, Charles River, Dover, Farm Street, Medfield Junction, Clicquot, Millis, Medway, Caryville, Mount Hope, Harvard Street, Dorchester, Morton Street, River Street, Blue Hill Avenue and Fairmount on the New England Railroad; and East Foxboro on the Boston and Providence railroad throughout the year; and to restore stops during the period approximately from June 24 to September 7 at South Dennis, Harwich, Orleans, Eastham, Wellfleet, Truro and Provincetown on the Old Colony railroad. The railroad was allowed to substitute shelters for existing station buildings at each of these stops.

Two trains in each direction were ordered restored on the Dorchester Branch of the New England Railroad and a single train in each direction on the West Medway Branch, daily except Sunday. Trains were ordered stopped at Boylston Street, Jamaica Plain, Forest Hills, Mount Hope and East Foxboro on the Boston and Providence railroad, as well as Plymptonville on the New England Railroad. Summer train service was restored on the Provincetown branch of the Old Colony Railroad to become effective on June 24, continuing to after Labor Day.

The Trustees of the railroad restored the service and reopened the stations on March 10, 1940.

On January 9, 1940 the New Haven filed with the Department the so-called interim passenger service plan, and public hearings were held on February 12, 13 and 16, 1940. The petitioners urged the adoption of a plan developed in collaboration with the special Legislative Commission to Investigate the Railroad Facilities of the Commonwealth. Evidence was received from representatives of various railroad labor organizations, the Old Colony Commuters League and the general public.

Concurrently with the filing of the Trustees' petition the Department initiated an investigation upon its own motion, taking into consideration evidence submitted in other cases involving the New Haven and Old Colony departmental checks of revenues and expenses, volume of traffic as well as counts of passengers using individual trains, analyses made by the Department's inspectors and other relevant information.

The Department modified the proposed plan in order to provide additional service, and the plan as modified became effective March 31, 1941, the important change affecting the service south of Braintree. It included stations at Boston, Atlantic, Norfolk Downs, Wollaston, Quincy, Quincy Adams, Braintree, Montclair, East Milton, West Quincy, East Braintree, Weymouth, Weymouth Heights, East Weymouth, Hingham, Cohasset, North Scituate, Egypt, Scituate, Greenbush, South Braintree, South Weymouth, North Abington, Abington, Whitman, South Hanson, Monponsett, Kingston, Cordage, Plymouth, Rockland, West Hanover, Braintree Highlands, Holbrook (Randolph), Avon, Montello, Brockton, Campello, Bridgewater, South Bridgewater, Middleboro, Wareham, Onset, Buzzards Bay, Sandwich, West Barnstable, Barnstable, Yarmouth, Hyannis, Monument Beach, Pocasset, Catumet, North Falmouth, Falmouth and Woods Hole.

On June 13, 1940, the Trustees of the New York, New Haven and Hartford Railroad requested approval of the abandonment of passenger stations at Forest Hills, Jamaica Plain and Boylston Street on the lines of the Boston & Providence Railroad. A public hearing was held and on July 26, 1940 the Department approved in writing of the abandonment of said stations.

The service on the West Quincy branch of the Old Colony Railroad was again before the Department, when on June 11, 1940 the Trustees of the New Haven petitioned for the abandonment of passenger train stations at West Quincy, East Milton and Montclair.

After public hearings and investigation by the Department, the petition was approved and the abandonment of said stations was authorized on September 6, 1940.

An increase in freight rates proposed by the New England Steamship Company between New Bedford, Woods Hole, Marthas Vineyard and Nantucket

was decided by the Department on October 31, 1940, after several public hearings. These increases were filed by the steamship company to become effective January 1, 1940, but were suspended by successive orders until November 1, 1940. In our order of October 31, 1940 the Department disapproved the rates as filed but allowed the petitioner leave to reissue after certain suggested adjustments.

COMMERCIAL MOTOR VEHICLE DIVISION

Wallace G. Kittredge of Malden was appointed Director on April 3, 1940 to succeed George O. Darling, and Harry Dunlap Brown of Billerica was appointed Assistant Director on August 19, 1940 to succeed David J. McCarthy, as a result of competitive civil service examinations.

During the fiscal year a total of 1,427 common, contract and interstate carrier applications was filed. As required by statute, written notice of all hearings on intrastate applications must be sent to all registered carriers. Three bulletins containing the list for hearing of all new cases, 1,871 in number, were issued. On these cases 55 hearing days were required.

An increasing number of transfers was noted the past year, and on such cases 178 investigations and hearings were held. By an order of the Commission, acting under authority of chapter 159B of the General Laws as amended, if the transferee is already the holder of rights, new rights obtained through transfer shall be consolidated with original rights of the carrier.

In connection with the W. P. A. State Records Project, a group of workers established a geographic card index showing the name and address, type of work performed and the radius covered by all registered carriers in the Commonwealth. This record will be continued so that the number of carriers now serving the various districts of the Commonwealth can readily be determined.

The Division received 782 complaints during the year, most of which were for certificate and plate violations. Some carriers failed to make prompt returns on C.O.D. collections, and adjustments on most of these were made through the Director.

Section 10A of chapter 159B of the General Laws provides that reciprocal agreements may be effected with states which do not charge fees to Massachusetts carriers. During the year the States of Ohio, Maryland, Pennsylvania, Vermont, New Hampshire, Delaware, Illinois, Indiana and New York entered into reciprocal agreements with this Commonwealth.

The office of the Division was moved from the Basement to Room 910, 100 Nashua Street, in November, 1940.

TELEPHONE AND TELEGRAPH

On November 30, 1940, there were 920,259 telephone stations in Massachusetts, a net gain of 27,331 stations over the preceding year.

The division handled 813 complaints that required specific survey or investigation.

Previous to the cut-over of the cross bar dial office for Newton, a scaling centre was established as of March 16, 1940, at Central and Washington streets, Newtonville, proposed location of the Newton central office, for the measurement of all extension and tie line mileage in the areas then being served by the Centre Newton, Newton North and West Newton central offices, resulting in a reduction of \$1,700 to subscribers.

Prior to the change from manual to dial office for Newton, the town of Watertown was served from the Newton North telephone exchange but upon the establishment of one exchange area within the City of Newton, a new exchange was set up for the town of Watertown and a scaling centre, effective March 16, 1940, located at the United States Post Office in Watertown Square was established resulting in a savings of \$300 in mileage charges to users of extension lines and tie lines.

As a result of petition filed by residents of that section of Gloucester known as Magnolia, after a public hearing and investigation, the Commission made

the Magnolia office, which up to that time was a separate telephone exchange, a central office of the Gloucester exchange area, effective April 26, 1940, and thereby abolished the five-cent toll charge for subscribers calling between those exchanges, saving subscribers \$1,600 annually.

On April 10, 1940, base rate areas in the Norwood and Canton exchanges were extended, thereby eliminating mileage charges for 26 subscribers in Canton and 15 subscribers in Norwood, with a yearly saving of \$510.

May 1, 1940, that portion of the Hingham exchange area subject to season service rates was reduced in size thereby eliminating five months' season service charges to subscribers involved with an annual saving of \$200.

On July 1, 1940, mileage charges were reduced in Groups V, VI and VII for four-party service located within one mile of the base rate area. These reductions benefited 1,092 customers in 66 exchanges to the extent of \$6,000.

On July 1, 1940, the Commission ordered the elimination of the 25-cent charge for dial equipped private branch exchange stations which was 25 cents higher than for manual type stations. This reduction affected 37,219 dial type telephones with an annual saving of \$112,000 to such customers. While the actual saving from this particular reduction amounted to \$112,000, as herein stated, the discontinuance of this 25-cent monthly charge will bring about an additional annual saving of \$150,000 to private branch exchange customers when the New England Telephone and Telegraph Company completes the conversion from manual to dial or machine switching exchanges now in process or planned.

As of July 1, 1940, message toll telephone rates were reduced by changes in mileage steps—the lowering of rates charged for the initial periods on calls in the amount of 5, 10, 15 and 20 cents per call and certain other reductions in overtime charges of 5 and 10 cents per overtime period. These reductions apply to calls originating and terminating within the Commonwealth of Massachusetts and to calls originating in Massachusetts and terminating outside the Commonwealth but within the territory of the New England Telephone and Telegraph Company. An annual saving of \$148,000 or \$73,000 interstate and \$75,000 intrastate, will ensue.

Extended Area Service

A new type of service, extended area service, was introduced experimentally on October 16, 1940, in selected exchanges only, this service now being furnished in the Andover, Chicopee, East Longmeadow, Leicester and Shrewsbury exchanges. This service permits customers to obtain exchange service over an extended area. It is furnished at monthly base rates which provide one-party and private branch exchange service on an unlimited basis in the local exchange and on an initial period message unit basis with other designated exchanges. Included with the extended area base rate are 40 message units for business service and 30 message units for residence service. Additional message units are 4½ cents each. It has been estimated that the introduction of extended area service in these exchanges will result in an annual saving of \$5,500 to those customers who avail themselves of the service. It is expected, however, that when this service is placed on a state-wide basis it will effect an annual saving of \$80,000.

Special Reversed Charge Toll Service

This service provides arrangement whereby customers to private branch exchange or one-party service (except coin box service) may offer their patrons in other exchanges the privilege of calling at their expense without having to request specific acceptance of the charge. Previous to July 1, 1940, this service was available between exchanges where the initial station-to-station rate was 10 cents or more. As a result of conference with the Commission, this service is now available between exchanges where the initial station-to-station day rate is 5 cents or more, except when one or more of the exchanges are in

Metropolitan Boston. If one or more of the exchanges are within Metropolitan Boston the service is furnished provided the initial period station-to-station day rate is 10 cents or more.

Foreign Exchange Service

As a result of a petition filed by certain customers of the New England Telephone and Telegraph Company relative to charges for foreign exchange service, hearings were held by the Department on March 21, 1940, April 11, 1940, and May 1, 1940. At the original hearing (D.P.U. 5816) various complainants appeared and stated their views regarding the discrimination in foreign exchange charges. Sufficient evidence was introduced to establish the accuracy of the petitioners' contention.

As of March 18, 1940, there were only 600 subscribers enjoying foreign exchange service on the obsolete basis.

After notice, public hearings, investigation by the Department upon its own motion and consideration, the so-called obsolete foreign exchange mileage charge in existence since July 1, 1932 was abolished.

When the regular rate for foreign exchange service was applied, many subscribers to that service under the obsolete rate filed protests. Investigation was made into each case and in a great many cases a canvass conducted by the personnel of the division. Most of these cases have been settled satisfactorily to all concerned by an extension of the exchange boundary permitting the subscribers to have service on the exchange desired.

Installation of Crossbar Type Dial Telephone Service

On November 17, 1940, the new crossbar dial central office serving Watertown and the Newtons was put into operation. This cutover was the 27th dial cutover in the Metropolitan Division and increased the proportion of customers served by dial equipment from 57% to 63%.

Highland Telephone Company

The Highland Telephone Company terminated operation of its system, and on October 5, 1940, its subscribers were furnished service by the New England Telephone and Telegraph Company.

State House Telephone Service

Changes within the various departments required a considerable number of telephone equipment relocations during the past year. A more flexible method of completion of calls has been provided in a number of departments.

While the transition of certain toll calls into local message units created an increase in local traffic, a substantial saving has been made in the cost of these calls without an increase in cost of operation.

Studies are being made on the advisability of centralizing through the State House telephone system divisions of departments located outside the State House that now have direct telephone service.

Reports from various departments in the State House show that satisfactory telephone service is being rendered over the present dial system.

DIVISION OF SMOKE INSPECTION

The Division has made during the fiscal year further gains in the elimination of smoke in the twenty-nine cities and towns which go to make up the territory covered by the smoke laws.

Plant Calls

Through the cooperation of all interested to operate within the law when violations have been noted the Division believes that this district is the cleanest of any in the country comparable in size and manufacturing interests. During the year the Division's inspectors have made a total of 768 plant calls. Many homes and apartment houses have Cast Iron Sectional type of boilers which have been used for many years and which were originally designed to burn smokeless fuel, such as hard coal, as they have only a small combustion space. When this fuel was \$5.00 a ton there was no smoke nuisance from these boilers; now, however, that the price is about \$13.00 it is only logical that the owners buy a cheaper fuel, such as soft coal, which incidentally has a greater heat unit content. This coal can be burned without violation, if the side-bank method of firing is used and the boiler is fired often. In starting new fires with soft coal, the kindling should be placed on top of the coal.

During the year the Division has prepared itself, with the cooperation of other interested parties, to aid in defence measures that will screen our water and sewer systems, navy yard and all public utility plants when called upon by proper authorities.

	1939	1940
Observations on Stationary Stacks . . .	282,079	319,683
Observations on Locomotive Stacks . . .	47,097	45,253
Observations on Marine Stacks . . .	6,176	6,700
Total	335,352	371,636

	1939	1940
Violations on Stationary Stacks . . .	762	668
Violations on Locomotive Stacks . . .	39	49
Violations on Marine Stacks . . .	20	24
Total	821	741

It is interesting to note that the total number of observations made this year on stationary stacks is the greatest ever made in any year by the Division. It is also gratifying to know that the total number of violations noted is the smallest of any recent year.

We have had the coldest heating season on record—no subzero weather in Boston—but from the blizzard on February 14 for two months the snow laid on the streets and fuel consumption was 16% more, by the Government reports, than ever before. Consequently, there was more smoke although there were no more violations or complaints.

During the year observations have been made on a total of 4,413 stacks and of these, 4,024 or 91.19% were without any violations having been noted.

Of the 8.81% violating, 0.18% were on Public Service stacks; 4.01% were on Manufacturing stacks; 4.62% were on offices and apartment buildings. Of the 389 stacks which violated during the year, 247, or 63.50%, had only one violation and 20.82% had only two violations.

Of the 668 violations reported on stationary stacks, 48.95% were on oil burning plants; 46.85% were on coal-burning plants and 4.20% were on plants burning wood or refuse.

Of the stationary violations—

1939	1940
86.88%	86.98% were on Class I stacks
11.81%	12.12% were on Class II stacks
1.31%	0.90% were on Class III stacks

The large plants are smoke conscious, as they know that smoke means waste and they seldom violate, and are more than willing to cooperate to operate within the law. The policy of the Division is education and cooperation. Our inspectors have been a great help to many fuel burners, for 80% of the smoke nuisance comes from careless operation or lack of information on the proper methods of firing and only 10% is from poor fuel.

Lack of the proper amount of air for good combustion is one great trouble in both oil and coal. All fuel must be heated, disintegrated and gasified before it burns. With fuel oil, it is important to have the proper turbulence, temperature and time so the viscosity and the degrees of the A. P. I. should be borne in mind as well as the right type of burner for the kind of oil to be used. Also the equipment should be kept clean. This means the burner, tank and boiler. One-eighth inch of soot means a 40% loss of fuel.

SALE OF SECURITIES

During the fiscal year there were filed with the Commission 230 Notices of Intention to Offer for Sale 293 security issues having a par value of \$1,169,284,092.97, the offering price for which aggregated \$1,670,686,735.16. This is an increase of more than 10 per cent in number of Notices filed and more than 25 per cent in aggregate offering price of securities for which qualification for sale in Massachusetts is sought. There was a monthly average of approximately 19 Notices and the aggregate offering price was \$139,223,900; the average offering price of the securities presented on each Notice being \$7,263,855. The smallest number of Notices filed in any one month was 12 in June; the largest number was 31 in April, the corresponding amounts of aggregate offering price being \$22,001,040 and \$100,023,211. Final disposition was not reached on 13 of the Notices filed, while 8 were brought over from last year so that final action was taken on 225 Notices covering 283 security issues during the year.

The aggregate offering price of the issues so considered amounted to \$1,568,-384,433.66. Of this amount \$851,591,338.66 was passed for qualification; \$464,135,943.50 was exempted and \$252,657,151.50 was permitted to withdraw and not become qualified.

Of the securities that had at some time become qualified, 28 issues having a par value of \$23,581,850 were forbidden to be sold because of failure to file required information. Revocation of these findings affecting 6 issues of a par value aggregating \$2,582,236 was made, the information having subsequently been filed.

A total of 531 brokers was registered during the fiscal year. Registrations of 13 brokers were cancelled upon request of the brokers and the registration of one broker was suspended after a hearing. A total of 2,610 salesmen was registered during the year, of which 91 were cancelled upon request of the salesman; 42 were cancelled for failure to furnish name of the broker by whom employed; 2 were cancelled by order after a hearing and one was suspended by order. In all, 34 hearings were held, resulting in 10 appeals being taken to a majority of the Commission. In addition to formal hearings, 561 complaints against brokers and salesmen were investigated.

In accordance with the provisions of section 32 of chapter 30 of the General Laws as amended by chapter 499 of the Acts of 1939, the Department submits the following list of all rules and regulations made or promulgated by the Department and in force and effective on November 30, 1940, namely;

1. P.S.C. 1752—November 8, 1918—Modification of regulations relative to emergency tools and appliances on railroad trains and cars.
2. D.P.U. 300—Rules with reference to the equipment of street railway cars.
3. D.P.U. 2304—Rules, terms and conditions, operation of motor vehicles for carriage of passengers for hire—May 15, 1926.
4. Rules for the observation of smoke by smoke inspectors—adopted February 8, 1929—authority section 4, chapter 651, Acts 1910.

5. Rules and regulations of the Department on July 31, 1931 relating to forms of accounts, records and memorandum and forms of annual returns of common carriers of gas and electric companies or persons in manufacture and sale or distribution of gas or electricity, and of water companies, together with attested copies of forms referred to in said rules and regulations.
6. D.P.U. 4214—August 19, 1931—Regulations relating to intake pipe leading to gas meter, an automatic device designed to retard gas in case of fire.
7. D.P.U. 4224—Rules and regulations—provisions of section 2, chapter 135, Acts 1931—Signals by rail-borne motor cars operated on railroads. Adopted December 24, 1931.
8. D.P.U. 4350—Rules, terms and conditions, operation of motor vehicles for carriage of passengers for hire, March 11, 1932.
9. March 25, 1932—Amendment to D.P.U. 4350 noted above.
10. D.P.U. 4437—Rules, terms and conditions, operation of sightseeing automobiles for the carriage of passengers for hire (June 30, 1932).
11. D.P.U. 4447—July 14, 1932—Rules and regulations relative to the lending of money by gas and electric companies.
12. March 24, 1933—Amendment to D.P.U. 4447 noted above.
13. July 15, 1927—Rules and regulations for filing of tariffs and schedules, also an amendment to said rules and regulations—June 23, 1933.
14. D.P.U. 4240—December 29, 1933—Order of department relative to books and accounts of gas and electric companies, municipal lighting plants and water companies.
15. D.P.U. 4350-AB—May 15, 1934—Amendment to rules, terms and conditions for the operation of motor vehicles for the carriage of passengers for hire, adopted March 11, 1932.
16. D.P.U. 4926—February 12, 1935—Rules and regulations relating to motor vehicles transporting property for hire.
17. D.P.U. 4888—March 12, 1935—Order in relation to equipment of railroad trains and cars with emergency tools and appliances.
18. D.P.U. 4350-AU—March 20, 1936—Amendment of Rule 38 of Rules, terms and conditions for the operation of motor vehicles for the carriage of passengers for hire, adopted March 11, 1932.
19. D.P.U. 4240—March 18, 1938—Order relating to classification of accounts for gas and electric companies, municipal lighting plants and water companies.
20. D.P.U. 4888—December 4, 1936—Order in relation to equipment of railroad trains and cars with emergency tools and appliances.

Respectfully submitted,

CARROLL L. MEINS, *Chairman*
JOHN J. CURLEY,
FRANCIS M. McKEOWN,
JOHN M. WHOULEY,
GILBERT W. COX,

Commissioners.

NOTE: Since the close of the fiscal year covered by the foregoing report, Joseph R. Cotton resigned and was succeeded as Commissioner by Gilbert W. Cox, of Needham; and Richard D. Grant, whose term of office expired, was succeeded as Commissioner by Carroll L. Meins, of Boston, who was designated Chairman of the Commission.

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